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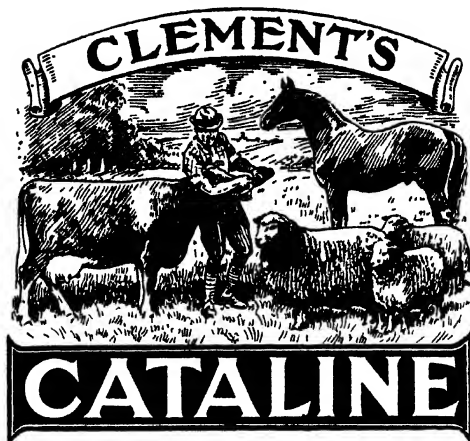
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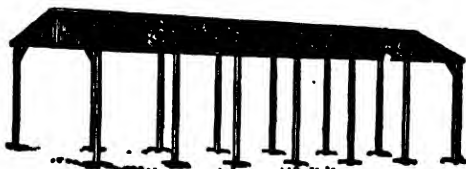
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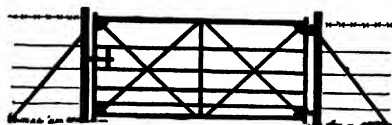
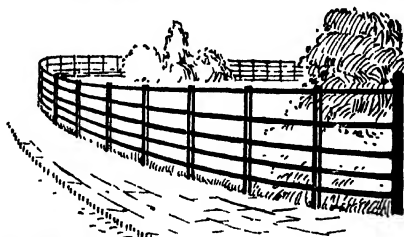
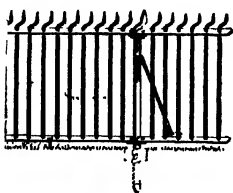
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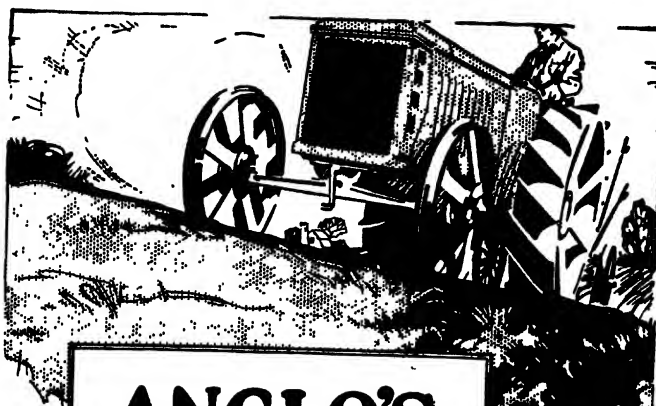
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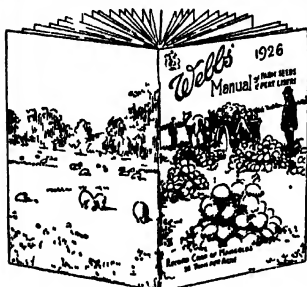
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VOLUME 86

**(BEING THE EIGHTY-SIXTH VOLUME ISSUED SINCE THE
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PRACTICE WITH SCIENCE

LONDON: .
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1925

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(Dating from the Foundation of the Society) :—

“The Society will not be responsible for the accuracy of the statements or conclusions contained in the several papers in the Journal, the authors themselves being solely responsible.”

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" 3	1842	" III	I (viii) II (ix.) & III (x.)	" 46	1886	" XXI	I (xli) and II (xlii)
" 4	1843	" IV	I (xi.) and II (xii.)	" 47	1888	" XXII	I (xliii) and II (xliv)
" 5	1844	" V	I (xiii.) and II (xiv.)	" 48	1887	" XXIII	I (xlv) and II (xlvi)
" 6	1845	" VI	I (xv) and II (xvi)	" 49	1888	" XXIV	I (xlvii) and II (xlviii)
" 7	1846	" VII	I (xvii) and II (xviii)	" 50	1889	" XXV	I (xlix) and II (l.)
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" 11	1850	" XI	I (xxv) and II (xxvi)	" 53	1892	" III	I (9) II (10) III (11) & IV (12)
" 12	1851	" XII	I (xxvii) and II (xxviii)	" 54	1893	" IV	I (13) II (14) III (15) & IV (16)
" 13	1852	" XIII	I (xxix) and II (xxx.)	" 55	1894	" V	I (17) II (18) III (19) & IV (20)
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" 31	1870	" VI	I (xi.) and II (xii.)				
" 32	1871	" VII	I (xiii) and II (xiv.)				
" 33	1872	" VIII	I (xv) and II (xvi)				
" 34	1873	" IX	I (xviii) and II (xviii.)				
" 35	1874	" X	I (xx) and II (xx.)				
" 36	1875	" XI	I (xxii) and II (xxiv.)				
" 37	1876	" XII	I (xxvii) and II (xxvii)				
" 38	1877	" XIII	I (xxx) and II (xxvi)				
" 39	1878	" XIV	I (xxviii) and II (xxviii)				
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JOURNAL

OF THE

ROYAL AGRICULTURAL SOCIETY OF ENGLAND

THE EVOLUTION OF THE DAIRY COW AS I HAVE KNOWN IT

It is somewhere about thirty-seven years ago that I went with the late Mr. Salisbury Baxendale and Mr. John Frederick Hall—two well-known breeders of Jersey cattle—to discuss with a Committee of the British Dairy Farmers Association the advisability of carrying out Butter Test Competitions at the London Dairy Show with “scalded” cream instead of with cream obtained through the then comparatively new mechanical cream separator; it being the contention of the Jersey breeders that more reliable results were obtained when “scalded” cream was used. Times have altered since then and the separator, which in those days made a horrible noise, now runs so quietly and does its work so well that without it it would now be almost impossible to get through the big butter test trials that are undertaken at the Royal Agricultural and the London Dairy Shows. This was my introduction to experimental work in connection with the Butter Test trials, but as the “Evolution of the Dairy Cow” is the limiting factor of this article I propose to put on one side the semi-scientific work connected with them and to confine my remarks to the improvement that I have observed in Pedigree Dairy Cattle in this country, largely attributable to these two trials.

For similar reasons I pass over the position at that time of the Milk Industry and of the difficulties connected with it—suffice it to say that “Beef” rather than “Milk” was the desideratum of the breeders of pedigree stock, and that it has taken many years to get the type and general appearance of the Dairy Cow recognised.

2 *The Evolution of the Dairy Cow as I have Known it.*

To show how great has been the increase in the number of Herd Book Societies I give the number of the Pedigree Breeds of cattle exhibited at the Derby "Royal" Show in 1881—the year in which I became a member of the Society—and of those represented at Chester last July, feeling sure that the figures will come as a surprise to many. At Derby, the following eight breeds of cattle were present—Shorthorns, Herefords, Devons, Sussex, Longhorns, Jerseys, Guernseys and Norfolk and Suffolk Polled, while at Chester no fewer than twenty-two breeds of pedigree cattle were exhibited, to twelve of which milk-yield prizes were offered. It is only fair to the "Royal" to mention that at Derby prizes were offered for Dairy Cows of any breed or cross, but as there were only four entries for the three classes, and one of these was not forthcoming owing to an accident on the railway, the actual number of exhibits was reduced to three, which would look as if the "Milk Cow" was not a good type of animal, and that the specimens from non-pedigree herds were capable of improvement.

There had, however, been a good deal of pioneer work at that time, the Agricultural Hall Auctioneer and Agency Co. having started a Show and Auction at Islington some four years before this. Their successor, the British Dairy Farmers' Association, held a Show at Islington in 1879, where apparently for the first time prizes were given to cows for their milk yields, quantity alone being taken into consideration in making the awards. This raised a protest from a competitor who wrote that "simply measuring or weighing the quantity of milk irrespective of its quality or the time that had elapsed since calving do not seem to me to be calculated to ensure the prizes being given to the most deserving animals."¹

This protest was evidently favourably considered, as alterations in the conditions of the Dairy Show schedule covering the two points raised were soon noticeable, which have made the milk yield trials of the Association models of what such contests should be.

I think it will be admitted by all that the credit of first calling attention to the usefulness and importance of these trials belongs rightly to the British Dairy Farmers' Association, and further that with their inception began the improvement of Dairy Cattle in every way.

Perhaps the next most notable contributory cause was the introduction of milk recording, of which so much is now made, and this was attributable to the keenness of breeders of Jersey cattle. A few words explaining how milk records came into favour are perhaps necessary. Jerseys were first imported into England in 1811, and by 1881 were fairly well known in the southern parts of the country, where they were generally

¹ *Journal of the B.D.F.A.* Vol. 36, p. 17.

described by the farming community as the "gentleman's cows."

Whether to get over this term of reproach or to show the value of Jersey milk for making butter, milk records began to be kept by several breeders, the value and weight of the butter made rather than the quantity of milk being apparently the object aimed at.

The first published records were those from Lord Braybrooke's herd at Audley End, which were begun in 1880, the figures being published in the third volume of the *English Jersey Herd Book*. Other notable breeders who kept similar records were Mr. Champion, of Hassocks; Mr. George Palmer, of Reading; and Mr. Swan, of Lincoln. But to Mr. John Frederick Hall belongs the credit of having been the first research worker on the value of milk for butter making, and his useful and elaborate statements and figures were also published in the *Jersey Herd Books*. As a result of his work, the English Jersey Society offered Butter Test prizes for competition at the British Dairy Farmers' Association's Shows, the first trial taking place in 1886.

There were, however, differences between the prizes given by the Dairy Farmers Association and those offered by the Jersey Society, which for a time rather militated against their success. The prizes given by the Dairy Farmers were for milk alone, and pedigree was not an essential. Indeed, the breeds competed more or less against one another, while, on the other hand, the Jersey Society's prizes were offered for Pedigree Jerseys only, no other breeds being allowed to compete for them.

The activities of the Jersey Society did not end here, for they gave their medals for Butter Test prizes to several other Societies; notably to the Bath and West of England, the Royal Counties, the Tunbridge Wells, the Essex and, later on, to the Royal Jersey Society at its Spring Show at St. Heliers.

These Societies, in many cases, supplemented the prizes given by the Jersey Society with milk yield prizes open to any breed or cross, but not being limited to pedigree cattle the information derivable from them was not of much value.

In 1890 the Jersey Society held a show of its own at Kempton Park for Jerseys only, which introduced a condition quite new, although it turned out to be useless at that time. It was "that a certificate declaring all the food used for a fortnight before and during the Show must be given to the Society." I do not think it is necessary for me to say why this condition was never again inserted in the Schedule of any Society, as it will be patent that the difficulties in getting it carried out were most formidable. A forward movement, however, in another detail, took place in 1892, when at the Tring Show, for the first time, the weights of all the competing cattle were taken, and a division into two classes was made, based on weight, 900 lb being the dividing figure.

4 *The Evolution of the Dairy Cow as I have Known it.*

In that year the late Lord Rothschild offered for the first time £200 for prizes for Milk Yield and Butter Test Trials, with one new condition, namely, that all the cattle must compete for both sets of prizes. This was gladly accepted by the Tring Society and these Trials were continued for twenty-one years until stopped by the war in 1915. They did more than any other competition in calling the attention of the farmers to the possibilities of improving the milking value of their stock by the use of bulls descended from good milking dams and by the keeping of milk records. During the whole of the time that these trials were carried on, all the expenses connected with them as well as the amount of the prize monies were most generously borne by Lord Rothschild.

In 1898 a further step forward was taken in that the prizes in all these trials were awarded on a scale of points. Up to that time they had been awarded to those animals which gave the greatest weight of milk in the milk yield classes and to the cows in the butter test classes whose milk produced the largest quantity of butter, but under the new system the points given took account of the length of time an animal had been in milk. These lactation points were subsequently altered, fresh conditions being imposed with the one object of making sure that the cows were breeding regularly; in other words, that they were having a calf in each year of twelve months, which, in my opinion, is the only way to ensure that the competitions for these prizes are fair.

In 1904, milk yield and butter test prizes were included in the Royal Agricultural Society's Schedule, and except when stopped by the war or by "Foot and Mouth" they have formed part of the programme ever since.

These prizes were given to each dairy breed of cattle, which avoided "the battle of the breeds" and caused an increase in the number of the various general milk yield classes.

They were undoubtedly the most important trials that had taken place up to that time because, as a condition precedent to the entry of stock, all animals competing had to be entered, or eligible for entry, in their respective herd books, and as a result, the standard of cattle exhibited showed at once a marked improvement in character and type.

The Butter test prizes were open to all breeds of cattle in two sections—those of 900 lb. weight and under and those over 900 lb.—but the records of each breed were kept apart and the average points were always included in the report of the 'Steward of Dairying.' It may occur to the reader that what I have written so far, has had little if anything to do with the Evolution of the Dairy Cow except as a summary of the trials that were initiated for her benefit. In reply I would say that

the improvement in every way in the Dairy Cattle competing in these trials went *pari passu* with the frequency of these practical tests, and that whereas in the early days there were comparatively few perfect specimens of the Milking Cow there are now present at the "Royal" and at the London Dairy Show ten times as many as there were in 1881.

Taking general appearance first. Some thirty-five years ago a wedge-shaped cow with other recognised dairy points, such as escutcheon and good udder, would not have found favour with Judges who were accustomed to give their awards to animals in training for Smithfield, a fact which I found to my cost when occasionally I had to act with other Judges in awarding a Champion prize to the best Dairy Cow in a Show.

It is not necessary for me to elaborate this point, or to say more on the general improvement in type and quality of the Dairy Cow, as I am confident that it will be agreed on all sides that the Pedigree Dairy Cattle exhibited at the Royal Agricultural and the London Dairy Shows have improved, year by year, in a wonderful way and are as near being perfect as they can be. I refer especially to the Dairy Shorthorns, the Lincolnshire Red Shorthorns, the Red Polls, the Ayrshires, the Channel breeds and the Kerries and Dexters.

That the improvement in general appearance has not in any way been prejudicial to the milk yields of the cattle who were entered for both the Ring classes and the practical trials is shown in the two following tables, which speak for themselves:—

TABLE I

Showing average results of Milk yield trials over two periods of five years from 1905 to 1909 and from 1921 to 1925 at various Shows of the Royal Agricultural Society.

Name of Breed	No of Cows		Days in Milk		Milk.		Fat percentage		Points	
	1905-9	1921-5	1905-9	1921-5	1905-9	1921-5	1905-9	1921-5	1905-9	1921-5
Shorthorns .	51	76	66	42	46	8½	51	10½	3.29	3.49
Lincoln Red Shorthorns	26	43	66	43	49	9¾	55	11¼	3.42	3.43
Red Polls .	29	34	93	80	40	8¾	49	2½	3.30	3.39
Ayrshires .	16	32	64	44	41	8½	51	2½	3.67	3.48
Guernseys .	36	49	63	73	38	5½	38	11½	4.10	4.35
Jerseys .	74	93	99	97	37	8½	35	1¾	4.58	4.58
Kerries .	41	28	69	60	33	10½	37	11½	3.59	3.58
Dexters .	45	32	63	56	31	8½	29	12¾	3.55	3.57
British Friesians .	—	73	—	65	—	63	2¼	—	3.02	—

TABLE II.

Giving the average number of certain breeds of cattle entered for the Butter test competition, with the Butter Ratios in two periods of five years, 1905 to 1909, and 1921 to 1925, at the Royal Agricultural Society's Shows.

Dates	1905-1909		1921-1925	
Breeds.	No. of Cows	Ratio	No. of Cows	Ratio
Shorthorns	20	30.01	56	29.86
Lincoln Red Shorthorns	19	28.23	33	29.07
Guernseys	14	22.54	30	22.84
Jerseys	85	19.66	99	20.59

From these it will be seen that the yields of milk, except in the case of the Jerseys and Dexters, have progressed steadily, the yields of the first period of five years being below those of the second period.

It will also be observed that the percentage of fat has gone up proportionately with the weights of milk which, in my opinion, points to the fact that the increase in milk is the result of careful breeding and selection and not of extra feeding.

The tables show further that with the exception of the Jerseys, which are noted for their long periods of lactation, and perhaps, too, the Red Polls, the bulk of the cattle have had their last calf from six to ten weeks before the trials, so that the long periods of lactation which at one time were instrumental in gaining prizes for cattle who were not breeding regularly, have disappeared.

I regret that it was not possible to include the records of the British Friesians in these tables, as none of this breed were exhibited in the period 1905 to 1909, and the two sets of figures were got out expressly for the purpose of comparing the yields of the second period with those of the first.

I have, however, inserted the records of this breed in the period 1921 to 1925, from which it will be seen that the British Friesian milks came out top of the list in quantity of milk, but bottom in fat percentage.

One word with regard to private milk records is, I think, necessary.

To my mind the omission of the date of calving nullifies the value of the returns. In a natural state a cow (like deer) would have a calf fairly regularly in the spring of the year, and as she got forward in calf her milk supply would dry up. The abnormal

desire of breeders to publish the return of heavy milking cows has made them oblivious of natural conditions and tempted them to keep back their cows from breeding and so enable them to publish what I consider a wrong statement as to the amount of the milk the cow should be expected to yield if she were breeding regularly.

To keep back the cow from breeding regularly is, in my opinion, a pernicious practice, and is detrimental both to the cow and to her offspring, whenever a calf does arrive after a prolonged period of lactation.

I myself would not buy a bull from any cow which was not having a calf every twelve months, and I would rather have a cow giving 800 to 900 gallons per year and breeding regularly than one giving double that quantity and having one calf only in two years. The difference of an extra calf is all in favour of the regular breeder as, nine times out of ten, the calf would be stronger in constitution and so be more fit to be head of a herd. To summarize, the period of lactation in milk recording should in my opinion be calculated from the birth of one calf to the birth of the following calf, which, in my experience as a breeder of over thirty-five years, ranges from eleven to thirteen months. A milk record on such lines would be absolutely fair, as it would show not only the value of the cow as a regular breeder, but the maximum amount of milk for which she ought to have credit in the period of a year of twelve months.

In cases where the difference between the birth of the two calves exceeded the period of twelve months, the true way of arriving at the quantity of milk for which the cow should have credit would be to take the record of the first three months after calving and then to take the records of milk, counting backwards from the birth of the next calf for a period of nine months. This, covering as it does the period during which the cow would be dry, shows the true value of the cow as a milk producer for twelve months, and also her regularity in breeding, which under the system at present in fashion is quite lost sight of.

Referring again to the unique condition inaugurated at the Kempton Park Jersey Show, as described on page 3, it may be pointed out that this certificate was of little value, as no guarantee of accuracy could be then obtained, and the owners of Jerseys were dependent entirely on their cowmen, who were not keen to give their hardly earned knowledge away.

Could it have been obtained it would have been very valuable, as my experience in carrying out the milking trials has been, that with a change of herdsman, the quantity of milk is very often affected, which I put down to the knowledge acquired from judicious feeding. It may be true that "the bull is half the

herd," but the value of a good cowman can hardly be over-estimated.

The research and practical work carried out by Mr. R. Boutflour, and explained in full by him in his article on "The Management and Rationing of Dairy Cows,"¹ shows most clearly the importance of scientific feeding and gives information that cannot fail to help the practical Dairy Farmer to maintain the maximum supply of milk without impairing the constitution of his cows. My experience as a breeder coincides with his that if cows are to be profitable they must be regular breeders and not be forced to attain high records at the price of their constitution.

To conclude, a long experience with dairy cattle, and particularly with milk and butter tests in the Showyard, leads me to think that the last generation or so has been one of steady progress in the evolution of the correct types. The work is not finished, and much still remains to be learnt, but so long as the pitfall, which success in the Showyard may present to the breeder who is not actuated solely by the desire for the improvement of his herd, is avoided, I have no doubt that progress will continue to be made.

ERNEST MATHEWS.

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THE SUFFOLK HORSE.

It has fallen to the lot of some to write on the Suffolk Horse who have had a life-long knowledge of the breed, but none can claim, in addition to their childhood recollections, that they have filled for thirty-eight years the post of Secretary to the Society, founded with the object of promoting the welfare and popularity of the breed.

If these years spent in tabulating pedigrees, searching up ancient events relating to the Suffolk Horse, with descriptions of bygone animals, are of interest, it is clearly a duty to place them on record. For almost all the facts relating to the ancient history of the Suffolk Horse we are indebted to the late Mr. Herman Biddell, of Playford, who spent, as he himself said, the best five years of his life in searching old newspapers, books on agriculture, in addition to old catalogues and horse-cards, to obtain information in regard to the breed and this, his great work, he embodied in Volume I of the Suffolk Stud Book. This work, on which the

¹ *Journal of the British Dairy Farmers' Association.* Vol. xxxvii, 1925.

editor spent so much time and brought his rare intellectual faculties to bear, was published in 1880 and has been admitted by those who might well be considered his most severe critics to be a masterpiece in the way of a foundation volume and history of a breed. The easy style of the writer, the detailed information given, together with the lucid practical comments, to be found punctuated at short intervals, call for expressions of praise and pleasure from those who peruse the work, although possibly at the commencement the reader may have been intent only on obtaining hard outlined facts relating to the pedigrees and history of the breed.

Volume 1 of the Suffolk Stud Book was originally issued at one guinea, but although the price has increased five-fold the stock is very limited and there appears little doubt that this work will one day be of great pecuniary value.

The casual reader of the history of the Suffolk Horse, as recorded in the first Stud Book, cannot fail to be impressed by the infinite pains and the immense amount of trouble the editor bestowed upon the production of this work. Not only are most accurate descriptions given of prominent horses of bygone days, their pedigrees traced, but notes of interest pertaining to the times and conditions then existing were added. The breeders themselves are also most characteristically alluded to, and in some instances their peculiarities noted. In fact, in after years the Stud Book may not only be invaluable in tracing the pedigrees of the Suffolk Horse, but it may be also valuable in tracing personal pedigrees of those who are descendants from Suffolk breeders of the eighteenth century. Amongst other items of interest the weather in extraordinary seasons is mentioned. Mr. Biddell had reliable data that *Smith's Horse of Parham* was foaled in 1799 and, in addition, he ascertained it was a wet harvest. The harvest of 1879 was also wet and, comparing it with former disastrous years, allusion is made to the year 1799 in the agricultural letter of the *Suffolk Chronicle*, which says: "In August heavy rain and cold easterly winds set in. The turnip fields were turned into perfect mire. The hay and clover were half rotted, and the corn was badly laid. . . . September was, if possible, worse, the corn lay soaking in water the greater part of it, and much of the wheat died from excess of moisture before the grain had reached maturity." In November the report was—"my neighbours have not finished harvest. The oldest inhabitant cannot remember the like. I had many acres of barley on the ground for two months, as it rained the greater part of the time."

Another prominent point which cannot but impress those studying the Suffolk Stud Book is the systematical and business-like manner in which the editor of Volume 1 set about getting his

information and matter together. Not only did he search through advertisement cards, County newspapers, show catalogues and interview numerous breeders and dealers, but he made a point of inviting horse-leaders to his house and if they could not make the journey he visited them himself at their own homes.

Of the many interviews and conversations recorded perhaps the most typical is the account of the editor's visit to Daniel Pattle, which he summarises as follows: "Old Mr. Pattle was eighty-five when I first went to him, note-book in hand, bent on getting from him what no other man could give. He was living at 'Cattawade Crown'—cheerful, stooping, broad-shouldered, but very old, and spoke like a man whose work was done. 'Good morning, Mr. Pattle, you can tell me of some horses which lived a long while ago, can you not?' 'I can't tell you much: my memory is gone—you have come too late, sir.' 'But you have some old horse cards, haven't you?' 'No, sir, not any now: three years ago I burned a thousand. There were as many as would lie on this table. I used to read them of a night when I could see. I had collected them ever since I was a boy. When I moved here, to my son's, I burned them all.' A thousand advertisement cards and some of them seventy years old! I felt inclined to ask him *where he put the ashes!* But the old man's memory was far from gone, and only wanted to be 'led up' to bring out tales of horses which he had known and whose hides had been tanned seventy years: quaint stories of his boyhood, recollections of what none but a man of fourscore years could give. He travelled a Suffolk horse in Yorkshire three seasons and 'brought his master home a fortune.' He had been to Mr. Coke's sheep-shearings at Holkham: took a horse up that way for three seasons, and 'did well,' albeit the said horse was a blind one. 'Yes, sir, he was blind as a bat of both eyes, and no one ever found it out but a boy. When we came along the road the little rascal sung out, "Master, your horse is blind!" "Go away," said I, "he's all right." He saw me chuck the bridle when we came to the stones!' From him, too, I got at a date to which no one else could help me. 'No, sir, I can't tell you when Smith's horse died—a very good horse he was, a gentleman all over: I knew him well, but that's a long while ago, sir' (Smith's horse was foaled about 1798). 'I can't tell you at all when he died, sir. My uncle—he owned old *Gye* 939 and lived at Elmssett, sir—he had a mortgage on Smith's farm. When the old horse died, that quite broke Smith up, and that year the money was called in. Yes, sir, I was just twenty then.' And so it was we got at the date of the death of *Smith's Horse of Parham* 1110. But I learned other things from Daniel besides these, and six months afterwards made up my mind to go again. I did go, but this time I *was* too late. The hearse was at the

door, and they buried the old man while I waited at Manningtree station for the train back to Ipswich."

From the foregoing it will be seen that every opportunity was taken to confirm verbal and in fact all information received pertaining to the breed, and no trouble or expense was spared to ensure that the history, as recorded, was accurate.

Sufficient has been written to make it clear that much of the history of the Suffolk Horse and particulars relating to the breed would have sunk into oblivion if it had not been for the timely work produced by Mr. Herman Biddell and published in 1880.

The first mention of the Suffolk Horse is found in *Camden's Britannia*, published in 1506, whilst Arthur Young, the well-known agricultural writer, alludes to the Suffolk Horse as being an old breed when he was a young man. Considering that Arthur Young was born in 1741 it is evident the East Anglian breed had been in existence many years previous to that date. At the present time all Suffolk horses trace back on the sire's side to *Crisp's Horse of Ufford*, foaled in 1768. He is described on his advertisement card as 15.2 hands high, light chestnut and active, and is depicted as having a large carcass on short legs, low fore-end with bent hocks. Such was the ancestor of the Suffolk Breed from which all animals of the present day claim their descent. Although the owner of this noted horse allowed him to travel at what may be considered a ridiculously low fee of five shillings, he inserts in the advertisement "have no occasion to say anything more in praise of him, as he is so noted a horse for getting remarkable fine colts" and after giving the route he will travel adds "so to continue the season, God willing."

This horse, hailing from Ufford, was the sire of *Gleed's Horse of Dickleburgh* 587 which was advertised as "a bright chestnut carthorse with flaxen mane and tail, 16 hands high, well-boned and free from all blemish, and well known to be a good drawer"; or as we should say at the present day a good puller.

Considering that pulling contests have been recently introduced at the American Fairs and even in London, it is interesting to note that the Suffolk Breeders were engaged in these competitions probably two hundred years previous. In confirmation of this the following notice appeared in 1742: "This is to give notice, that at the 'White Horse' at Aldham, on Friday the 18th of this instant June, will be given a silver cup of two guineas, to be drawn for by any team of horses, mares or geldings, and no less than two teams to draw for the said prize, and they that make twenty of the best and fairest pulls and carry the weight over the block with the fewest tifters, according to the judgment of the proper persons, shall be instituted to the prize. Those that draw, to enter their names between the hours of ten and twelve

on the day aforesaid, and the first team to be upon the pin by three of the clock."

Also some twenty years later the following advertisement was issued: "Harleston, Norfolk. This is to give notice, that on the 18th of this instant March, there will be a drawing for Stallions at the house of John Hamblem, called the "Magpie," for a silver cup value five guineas: no more than seven to enter and not less than five. Each horse to draw single, to raise the most weight. The best of twenty pulls, and for every blank, to have a bushel of sand laid on the waggon."

Youatt, writing on agriculture in the last century, says: "The excellence, and a rare one, of the old Suffolk consisted in nimbleness of action, and the honesty and continuance with which he would exert himself at a dead pull. Many a good draught horse knows well what he can effect: and after he has attempted it and failed, no torture of the whip can induce him to strain his powers beyond their natural extent. The Suffolk, however, would pull at a dead pull until he dropped. It was beautiful to see a team of true Suffolks, at a signal from the driver, and without whip, down on their knees in a moment and drag everything before them. Brutal wagers were frequently laid as to their power in this respect, and many a good team was injured and ruined. The immense power of the Suffolk is accounted for by the low position of the shoulder, which enables him to throw so much of his weight into the collar."

Such entertainment, however, would not be permitted at the present day: for what would the public, what would the Society for the Prevention of Cruelty to Animals, have to say when it was known that these teams were not allowed to pull with their collars on, but bare hames or seals was the order of those days.

Previous allusion has been made to *Smith's Horse of Parham* 1110, he was the fourth generation from *Crisp's Horse of Ufford* 404, and was bung-tailed, that is his tail was removed close to his rump, as was also his sire's. He was of dark chestnut colour and an old horse-leader describes him as "a good hoss all over a gentleman." Mr. Biddell tells us he belonged to a little farmer at Parham, who worked him all the week and did a great business in fees when the day of rest came round. This noted horse left numerous progeny; of these, two stood out prominently, namely, Brady's *Briton* 198 and Julian's *Boxer* 755. At the time the first volume of the Stud Book was published both these sires had many prizewinning descendants then living to their credit, although the former sire carried the palm. However, on referring to the prize-chart annually published in the Stud Book, we find that Julian's *Boxer* does not now appear as having a single prize-winning representative, and has not done so since 1922. This is more remarkable when one reads that this horse travelled twenty-

five seasons and died at the age of thirty. Brady's *Briton* 198, foaled in 1809, like his sire, left two prominent colts, *Plant's Horse* 950 and Groom's *Ramper* 636, and from these two offsprings the prizewinning Suffolks of the present day all trace their descent. There is something remarkable in the lines of descendants from these two horses; at a certain period it will be found that the progeny of the latter are much more conspicuous in the show ring than those of the former, and then if we look further on, after a lapse of twenty years, the reverse has happened, and the *Plant's Horse* descendants are winning almost all the prize ring honours. At the present day honours are about equally divided. There is another curious fact in regard to these two lines of pedigree, and that is, for nine generations on one side and ten on the other, the claim to being the ancestor of the present day Suffolk hangs on a single sire. *Plant's Horse* was foaled in 1815, the ninth generation is *Wedgewood* 1749, foaled in 1886. Groom's *Ramper* was also foaled in 1815, the tenth generation we find in *Eclipse* 2627, foaled in 1889. Thus the prize-winning animals of to-day are all descended on the sire's side from these two horses. This must be considered a remarkable and interesting fact. Here we have a breed tracing their descendants back in direct male line to the year 1768, yet after the space of about 150 years all prize-winning animals are the produce of one or the other of these two animals foaled about forty years previous.

Few breeders who are conversant and have a life-knowledge of the Suffolk Horse appear to be aware of these particular circumstances and if they are, none can give a satisfactory explanation. This would have indeed been an interesting problem for the Editor of the first Volume of the Stud Book to have tackled, had he been spared to have seen the peculiar working of the pedigrees he bestowed such pains and time to unravel. In the history of the breed prior to the publication of the Stud Book in 1886 there had been three known cases where outside blood had been introduced and we gather in all three instances the infusion proved a success for a time, being more pronounced about the fourth and fifth generations, but after a period of ten generations the showyard contained no traces of these endeavours after improvement. Of the three occasions where strange horses were introduced Blake's *Farmer* 174, foaled in 1760, was the first, and his advertising cards read as follows: "Farmer was the property of the late Mr. W. Garthsides, of Lincolnshire: bred by Mr. Garthsides, got by Mr. Wallet's famous *Golden Farmer*, son of Rigby's *Fearnought*, his dam by Eyven's stud, remarkable for strength and moving. He goes as well as any horse in the country, there are few able to perform with him." This horse was of chestnut colour and is referred to by the Editor of Volume 1 as

the trotting horse, and he mentions that when this horse was introduced it evidently was not with the intention of breeding cart-horses, as particular attention is called to his performance or action. He was no doubt an undersized animal, as allusion is made to his two-year-olds being full of bone and standing 15 h.h. Whatever the qualifications of this horse were, as a sire, mated with Suffolk mares, he proved an unqualified success. Numerous descendants of this horse appeared before the public, it being actually the most popular strain, for the space of a hundred years after this Lincolnshire introduction made his appearance. Yet notwithstanding the sires of this blood had been mated with the best blood then in existence, the stock dwindled considerably after about 1860, and by 1900 it was obliterated.

The next instance of the introduction of outside blood was in the year 1802, when one John Wright, of Attleborough, Norfolk, decided to travel *Farmer's Glory* 1396 in the centre of the Suffolk Country. This horse is described as a beautiful chestnut cart-horse; he had a certain amount of white on face and legs, and superfluous hair was more marked than in a well-bred Suffolk. It is stated this horse also came from Lincolnshire, and as John Wright was a well-known Norfolk dealer there is every probability that his business transactions would frequently take him to that part of the country and not improbable that he should purchase this horse and that it was the produce of a Suffolk mare he had previously sold to the breeder. From the stock left by *Farmer's Glory* it is evident he introduced, at the commencement of the nineteenth century, size and possibly white faces into the Suffolk Breed. It is only a few generations after this introduction that we read that one of his descendants, Mumford's *Champion* 891, bred at Lavenham, Suffolk, weighed upwards of a ton and stood 18 h.h. Although this Attleborough strain had a long innings and sired numerous and successful animals in the show ring, it did not maintain its hold for the same length of time as the Blake's tribe.

Bouncer, foaled in 1878, bred by Mr. A. W. Crisp, of Chillesford, was the last sire entered in the Stud Book, being a descendant of *Farmer's Glory*, and as this horse was introduced in 1802 the Attleborough tribe may be said to have been in existence for seventy-six years, whilst the Blake strain had one hundred and four years to their credit.

The Shadingfield stock is the third in importance of the efforts made to introduce fresh blood and was brought into existence about 1793, some nine years previous to the Attleborough stock. The history of Barber's *Proctor* 58 is somewhat remarkable, and Mr. Biddell tells us that Moyse, an old horse-leader in the early eighties, said "the horse was intended for a trotting horse, and, forthwith, he must have the tail with that detestable turned-up

dock—the slight curve which puts an indelible stamp of vulgarity on anything so ornamental. But Barber would have his colt's tail “nicked.” In that brutal operation, the vertebrae of the tail was dislocated. What was to be done? Why, take off the remaining joints up to the rump, and there was the customary “bung” tail of the common carthorse of the day. And so Barber's *Proctor* was travelled as a cart-horse. He had, so far, the recommendation for the county: although a bay himself he came of a chestnut mare. His dam was a Suffolk. All this occurred sixty years before Moyse related the story to the writer. That he was correct about the breeding of the sire of Barber's horse, there is little doubt, for in the year 1789, one P. Winter advertises “a blood bay colt full 15 h., by Gooch's horse *Stormer*.” He stood at Snape. Nothing is said in Winter's advertisement, either of Gooch's *Stormer* being a blood horse, or of his being brother to *Thunderbolt*; but the very year that he advertises his colt, Gooch advertises the blood horse *Thunderbolt* as being brother to *Stormer*. On turning to Weatherby's Stud Book, it appears that *Stormer* was bred by the Duke of Grafton, in the year 1774. The age is exactly right, and what more probable than that, proving useless as a race-horse, he should have been sold for a country stallion close by home? Now, it matters very little whether Winter's *Stormer* was, or was not, the son of a certain horse, but it is of no little importance to test the credibility of an authority so often quoted as our old friend, from whom this history comes.

Conclusive evidence in confirmation of the pedigree of Barber's *Proctor* has of recent years come to light; unfortunately, however, this was not till after the decease of the Editor of Volume 1 of the Suffolk Stud Book. At a small furniture sale conducted in a country village, amongst a various lot of books, was discovered an old-fashioned leather pocket-book with wallet, giving the manufacturer's name as James Stubbin, Ipswich 1754. Loose-leaf ledgers were evidently in vogue in these early days, for sheets of foolscap size were doubled into eight and inserted from time to time. Apparently Mr. Gooch, the owner of *Stormer*, herein recorded his transactions in reference to his stud business, particulars being detailed for the years 1783 and 1785. The entry which is particularly interesting is under the name of *Stormer* for the year 1785 and reads “Mr. Winter Aldbro' sorrel mare.” This is assuredly direct evidence of the service, the produce of same being P. Winter's *Stormer* 1329 the sire of Barber's *Proctor* 58, the founder of the Shadingfield tribe. Thus again in after years we are enabled to check the credibility of the source from which Mr. Biddell obtained much valuable information and interesting particulars pertaining to the breed. The produce of the Shadingfield stock are described as usually dark in colour

with white legs, thin in the shoulders, and light bone, especially below the hocks, but were wiry, very active with long narrow heads. This strain prospered for a time, but not to the extent of the two previous infusions. It is thought the cross was more drastic and consequently did not blend so well with the Suffolk; one instance particularly noticeable was the mares to the third and fourth generation throw back to the bay colour. The Shadingfield stock cannot be said to have existed for more than fifty years, and the leading authority on the breed says, "I am not aware of any particular benefit that accrued from this cross, the stock were a light-hearted, high-spirited race, but they were often too fiery tempers."

The foregoing may be considered but a brief outline of the three prominent introductions of extraneous blood in the early history of the Suffolk. Other crosses were no doubt introduced, but the results were not important and had no material effect on the breed. There is, however, yet one other instance which is worthy of note. In the breeding of Catlin's *Duke* 296, foaled in 1846, we find his dam was the progeny of a Suffolk-Belgian cross. This horse was the celebrated *Royal Windsor Duke*, the idol of Suffolk Breeders during the years 1850 to 1855. Mr. Manfred Biddell writes of him—"Take him all in all, he was the most perfect horse that I can call to mind. From a foal to his decrepit old age he was a great favourite with all who could forget or forgive the alloy in his composition. He first came out as a two-years-old, when he at once made his mark, although he then looked to some rather too 'punchy,' but from that time he grew in length and certainly became the most popular horse of his day; and if his work be measured by his produce he exceeds all Suffolk horses in the number of winners at Shows left by him, both colts and fillies. His procreative powers were extraordinary, and I had it on the authority of his leader, Charles Row, a man of undoubted integrity, that one season he booked eleven score mares to him, and it is well known that no horse left a greater percentage of mares in foal." He was sold at the Butley Abbey Sale in 1855, on the death of Mr. Catlin, being nine years old, to Mr. Fisher Hobbs, of Boxted Lodge, Essex, the hammer falling at 255 guineas, no mean sum in those days considering the age of the animal. Volume I states, this horse died in a good old age, perfectly sound, having, it was supposed, left more recorded descendants than any other horse. Thus in the year 1880 when the first volume of the Suffolk Stud Book was issued the descendants of this horse were legion. These would be of the fourth and fifth generations, yet notwithstanding this multitude of offspring left to propagate this particular line, we find that after 1912 the direct male descendants do not again appear amongst animals with showyard honours to their credit and thus



Photo by J.

Humble Lam Agility 4935

Unspotted and unbridled



[Sport and General]

Merston (Helen) 0045

[Photograph]

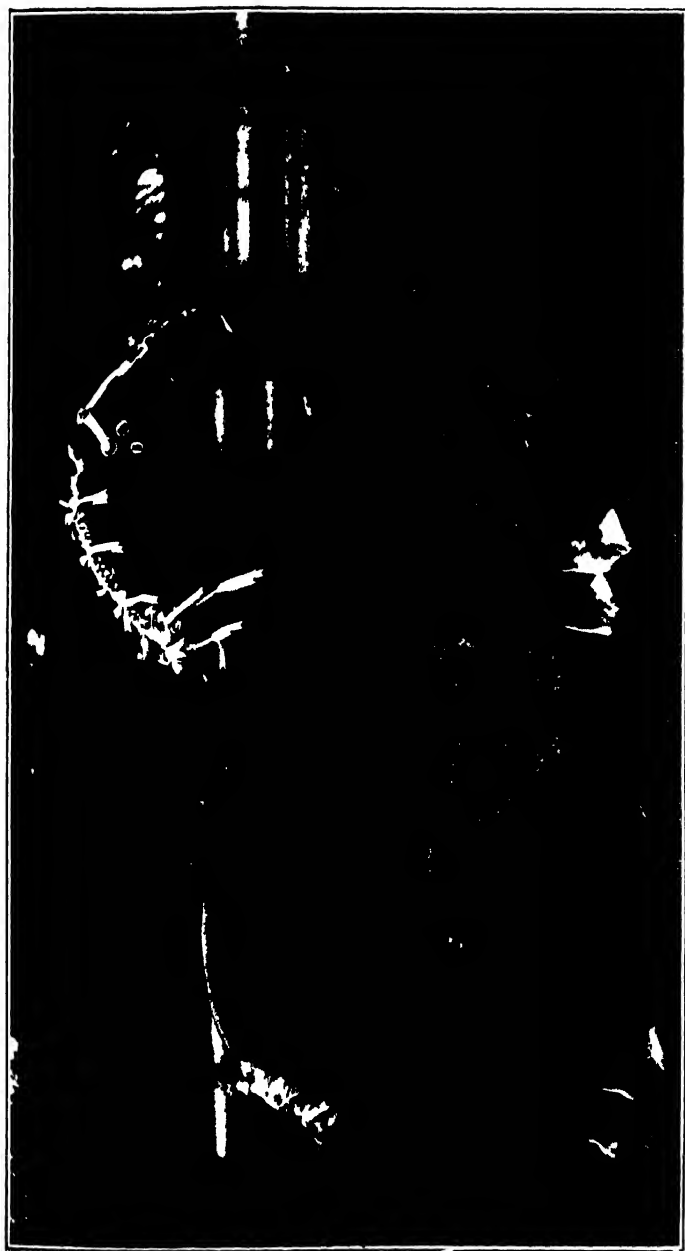


Photo.

Salmon, the Premier 1905

Le H. P. 1905

the renowned Royal Duke lineage is now entirely erased from the pedigrees of the present-day sires.

As previously mentioned no doubt there are other instances of the infusion of strange blood, but the remarkable point is that although the experiment may prosper for a period, ultimately the stock disappears and the old breed is left to "carry on." Hence it is that the strain running through all the Suffolk Horses of the present day in direct male line is either the *Wedgewood* or the *Eclipse* and under a careful scrutiny this line would be found intermixed to a prodigious degree in all the studs now in existence. Considering the prominent position these two stallions hold, a brief authentic description may be welcome. Although there may be a certain amount of difficulty in arriving at a correct description of an animal, such as would give breeders in generations to come a comparative idea and a reliable criterion of present-day animals, a record of weight and measurements of prize-winning animals cannot fail to be of interest. Fortunately the Council of the Suffolk Horse Society came to the same conclusion and appointed officials in 1891 for the purpose of recording the authentic weights and measurements of the first and second prizewinners at the Suffolk County Show, held at Ipswich. Unfortunately this procedure was not continued the following year owing to an unreliable weighbridge being the only machine available. Present-day breeders, however, are grateful that these interesting figures were recorded if only for one year, for therein are included the particulars of both *Wedgewood* and *Eclipse*. The former in the year 1891 would be five years old and the latter only two years old; allowance must be made therefore for the difference in ages, which is considerable at this early period in the life of an animal, for a five-years-old may be considered a mature animal whilst a two-years-old is a youngster. The recorders were William Biddell, of Lavenham, at one time Member of Parliament for the Sudbury Division, and Henry Spurling, auctioneer of Shotley, Ipswich, and they duly certified that the figures given were correct to the best of their belief. These read as follows:—

Wedgewood 1749. Weight 18 cwt. 2 qrs. 16 lbs. Girth 7 ft 8 ins., below the knee 10 ins., below the hock 12 ins. Height 16 h. 2½ in.

Eclipse 2010. Weight 16 cwt. 2 qrs. — lbs. Girth 7 ft. 2 ins., below the knee 10 ins., below the hock 11 ins. Height 16 h. 1½ in.

It will be seen from the figures that *Wedgewood* was not a big horse but he was short on the leg, a Punch all over and what is often termed "a little big 'un." In latter years his girth increased and he was nicely turned from the rump to the setting

on of the tail, which characteristic was generally distinguishable in his numerous progeny. Above all, he had excellent feet, and this qualification he imparted to his descendants, which was most desirable at his time, so that in this respect he stands out as a great benefactor to the breed. He was bred by B. A. Posford, of Falkenham, and was first shown at the Woodbridge Spring Show as a two-years-old, but was unnoticed; at the Summer Show in the same year, however, he was placed first in his class and sold for 250 guineas to Alfred J. Smith, who stood him at the Barrack Farm, Woodbridge, till 1892. Under his new owner's name he had a long unchecked showyard career and, in addition to winning numerous Champion prizes, he was awarded the Champion Prize, including the Queen's Gold Medal, at the Windsor Royal Show in 1889. *Wedgewood's* progeny was most conspicuous in the Sudbourne Stud, his descendants being such well-known sires as *Sudbourne Count* 3257, *Sudbourne Arabi* 3287, *Sudbourne Arab* 3309 and numerous others, including in addition a long list of prizewinning mares. Of the many sires he left to perpetuate his name A. J. Smith's *Saturn* 2653 was the most prominent in that he was champion stallion at the Suffolk Show three years in succession. In the various volumes of the Suffolk Stud Book will be found charts showing the pedigrees of the first and second prizewinners at the principal shows. From a casual glance at these interesting records it will be found that the Wedgewood stock, representing *Plant's Horse* 950 foaled about 1815, was prominent as prizewinners from 1900 to 1910. During the next five years the honours of being the sire of the prizewinning stock was about equally divided between the Wedgewood and the Eclipse ancestral line, the latter being the representative of *Groom's Ramper* 636, also foaled about 1815.

There is no doubt, however, that many excellent Wedgewood mares were mated to *Eclipse* about this time, and many of the animals seen in the showyard were the result of the Wedgewood-Eclipse cross; these are registered to the credit of *Eclipse*, he being the sire.

Since 1915 the pendulum has been gradually swinging in the favour of this strain, which has generally been designated as the Cup-bearer line. *Eclipse* is now the only connecting link between those noted three generations of Cup-bearers and the horses of the present time; it may be advisable in future to refer to the descendants of this important, if not the principal line of pedigree, as being the Eclipse strain. As previously stated *Eclipse* was foaled in 1889 and was bred by a noted breeder of the period, Mr. Edwin Capon, of Aldeby, near Beccles. Other prominent sires were bred by Mr. Capon, amongst them *Golden Grain* 2479 and *Minstrel Boy* 1759; both these horses made their mark in the showyard and as sires, especially the former, but the latter was

exported to the United States of America when he was five years old. In studying the pedigree of *Eclipse* it will be seen that he has a double portion of Cup-bearer blood, for his sire was a grandson of *Crisp's Cup-bearer* 416, also his grand-dam was sired by *Claimant* 562, a son of *Cup-bearer* 416. From the point of breeding and also from his showyard performances *Eclipse* was a worthy representative of the Cup-bearers, a line of sires which occupied the highest pedestal amongst the breeders of their day. It was said of *Cup-bearer* 3rd that he was the most successful Suffolk horse that ever entered the ring, his winnings during five years amounting to upwards of £900. In describing *Eclipse* one is enabled to gather from the records published when he was a two-years-old that he would mature into a massive animal with a good proportion of bone. Standing about 16 h. 3½ in., in his prime he would have turned the scale at 21 cwt.; being deep in the girth with thighs well let down, he was an excellent mover and possessed good feet. It was at the Suffolk Show held at Ipswich in 1891 that he first made his appearance in the show-ring, when he was placed second to *Windsor Chieftain* 2025, a big-boned animal, but was inclined to be swampy in the back. This decision was reversed at the Doncaster Royal Show soon afterwards, where Mr. Herman Biddell and Mr. J. S. Nunn were adjudicating. Here *Eclipse* was placed first, the Duke of Hamilton's *Wedgewood* second, and *Windsor Chieftain* only obtained the third place. As a three-year-old *Eclipse* carried everything before him and was placed first at the three leading shows. This position he virtually upheld from 1893 to 1897, when he appeared amongst the aged stallions. In addition, this long list of class honours was augmented by numerous Champion and Breeding Stock Prizes. *Eclipse* was the outstanding horse of his day and left a strong army of his progeny at his death, which occurred at a comparatively early age, for it was in the autumn of 1897 that *Eclipse* and his stable companion *Prince Edward*, a most promising three-years-old, succumbed, it is believed, from injudicious feeding. The two stallions sired by *Eclipse* which appear most conspicuous in the Suffolk Pedigrees of to-day are *Golden Grain* 2479 and *Sudbourne Sunshine* 3374.

The breeding of the former is somewhat remarkable. Allusion has previously been made to *Eclipse* having *Cup-bearer* 3rd 566 as his sire, his grand-dam being by a son of *Cup-bearer* 416, thus possessing a double portion of the noted strain. In examining the pedigree of *Golden Grain* it will be found that his dam is by a son of *Cup-bearer* 3rd and his grand-dam is by the same horse *Claimant* 562, that is, the sire of the grand-dam of *Eclipse*. *Golden Grain* therefore possesses a double portion of Cup-bearer blood, not only on his sire's side but also on the dam's side as well. Like his sire, *Golden Grain* has left us two of his descendants

which stand out prominently amongst his offspring, namely *Bawdsey Harvester* 3076 and *Sproughton Gold Ring* 3347. The former was a massive, heavy horse in every respect and, as is not uncommon with such animals, at three years old he was still a big overgrown colt with no pretensions to showyard honours. However, as a four-years-old he was quite a different horse and he had no difficulty in being placed in the premier position in the aged stallion class and being awarded the Championship of the yard. This coveted position he maintained during the three following years.

Bawdsey Harvester was the produce of the Suffolk Horse Society's Free Nomination Scheme and was purchased by the President of the Society, Sir Cuthbert Quilter, as a youngster. He was the sire of the champion *Sudbourne Peter* 3955, *Bawdsey Laddie* 3637, and *Morston Friday* 4265, both the last two animals being sold for exportation at a large figure, before they had had much chance at the stud. As the leading sire of such a large stud as is to be seen at Bawdsey, *Harvester* proved equal to the occasion. Of his numerous progeny it is hazardous to predict which will be the prominent strain in the future, but such sweet symmetrical mares as *Morston Girl* 8804, *Sudbourne Moonlight* 8623, *Sudbourne Doris* 7823, and *Sudbourne Dona* 8201 will always stand out to his credit.

Sproughton Gold Ring, also by *Golden Grain*, bred by that well-known breeder, Mr. W. E. S. Wilson, of Hadleigh, was a horse which many stud-owners thought that this country could ill spare, but unfortunately in 1910, when he was only six years old, he was exported to the United States of America. As it was, with only a short time at the stud, he sired the Champion *Gold Guard* 1234 and several other animals which were destined to bring credit to Mr. Arthur T. Pratt, of the Morston Stud.

Of *Sudbourne Sunshine* 3374, the other noted sire by *Eclipse*, it will be found that his dam was by *Wedgewood* 1749 out of a Rendlesham Mare. He was bred by E. J. Johnson, of Rougham, Bury St. Edmunds, and made his mark as a sire at the Wolverstone Park Stud owned by Mr. C. H. Berners, and is frequently referred to as Berners' *Sunshine* 2734. In 1907, being then ten years old, he was purchased by Mr. J. M. Longe on behalf of the Sudbourne Stud, and in his fresh home, surrounded by the choicest mares of the day, he was an unqualified success. This assertion is beyond refute when it is mentioned that such world-famed animals as *Sudbourne Beaumonde* 3598, *Sudbourne Beau Brocade* 4235 and *Sudbourne Premier* 4963 are the descendants of this noted sire. They and many another, although perhaps not so prominent amongst the showyard rosettes, will help to establish a place for *Sudbourne*.

Sunshine, the Eclipse-Wedgewood cross, in the records of Suffolks for years to come.

Thus, the pedigree of the Suffolk Horse is briefly summarised since 1768 to the commencement of the Great War in 1914. It has been shown how extraneous blood has been rejected and disappeared, not one of the alloy strains in the male line being able to stand against the influence asserted by the old Suffolk Breed. As Mr. Biddell says :—"Curiously enough, every introduction of an exterior element infused into the blood has flourished but for a time, and the fact remains that each and all have died out in the male line, overwhelming evidence of the purity, the antiquity and the distinctness of the breed of Suffolk Horses now extant."

To-day the breed stands with a long line of ancestors at its back improved undoubtedly beyond the imagination of the most optimistic of bygone breeders and admirers. Of the purity of breed it is unnecessary to refer to pedigrees or any genealogical charts. Suffolks are all "chestnuts." What other breed of horses is to be found that always breed true to colour? The Thoroughbred and even the Arab are not to be relied upon in regard to the colour of their offspring. With Suffolks there is only one colour: different shades there may be, developing from the light mealy shade to the cherry red and broadening out to the dark mahogany. The Volume I tells us "There are seven shades—the dark, at times approaching a brown-black, mahogany or liver colour; the dull dark chestnut; the light mealy chestnut; the red; the golden; the lemon; and the bright chestnut. The most popular, the most common, and the most standing colour is the last named. The bright chestnut is a lively shade, with a little gradation of lighter colour at the flanks and at the extremities—but not too much. It is, in most cases, attended with a star on the forehead, or thin 'reach,' 'blaze,' or 'shim' down the face. The flaxen mane and tail prevalent 100 years ago, and occasionally found at the present day, are usually seen on the bright chestnut. This shade is also not infrequently shot with white or silver hairs hereditarily distinctive of certain strains. The red chestnut is a very popular colour; and a red chestnut is almost sure to be a whole-coloured horse. There is no variation of shade in it, not even at the flanks, quarters, or extremities. It is said to come of a taint of bay origin: especially the lighter variety—the cherry red. The golden is a beautiful colour, not many removes from the bright chestnut, but it is not infrequently faced up with a white heel behind. The lemon is a very light golden shade; known sometimes as the 'yellow' chestnut. The light mealy chestnut is condemned by all; it is indicative of a weak constitution, soft legs and a slow phlegmatic temperament. Commencing with

a dull chestnut body, the flanks and under-line are a mottled ash colour, gradually shading off to a dirty white at the extremities, which are usually covered with soft hair of the same hue. The dark chestnut is a favourite with some breeders, but it is mostly a changing colour, varying with the season of the year, from almost a black to a dark cherry red. It has been prevalent from the commencement of the present century to the present time." Although "the present time" alluded to was some fifty years since, the remarks then penned are equally as applicable to-day as at the period they were written. The different shades of chestnut are still to be seen in going around the various studs but the flaxen mane and tail are still less conspicuous than they were in Mr. Herman Biddell's day and silver or grey hairs are not so prevalent as was the case in the immediate descendants of the Cup-bearer stock, when one could call to mind instances of animals in the Framlingham district which were, if not quite roan, decidedly very closely allied.

In replying to the question—What are the two chief characteristics of the Suffolk Horse?—the answer would be—Compactness and Hardy Constitution. For endurance and constitution the Suffolk has long been famous and it was so in 1813, when Arthur Young wrote in his description of the County of Essex—"The Suffolk breed of horses are favourites in Essex."

The very name of "Punch" conveys the idea of Dickens' Fat Boy, and on referring to the dictionary the definition is—"Punch, a variety of English horse, short-legged and barrel-bodied, a short fat fellow." Here we have a description, with certain modifications, of what we should expect to find in the Suffolk. A good performer at his work and a keen performer at the manger, always carrying a fair proportion of flesh, whether the rations be scant or plentiful. This qualification was particularly mentioned by Mr. C. G. Tindall, who was largely engaged in heavy transport work in Australia, his teams often covering several hundreds of miles from one point to another. This breeder had considerable experience with Suffolks, for he purchased his first animal for export at the Chelmsford Royal Show in 1856, and in alluding to his experience with the Suffolk-cross horses on this work said that more often than not they came off the journey in better condition than when they set out, having obtained their living solely from the grass by the side of the track they were passing along. Two other reasons he gave for favouring the Suffolk Horse, which qualifications would be of vital importance in the Colonies—they were excellent in standing the heat, and being a breed of such long standing and pure blood they were enabled to stamp their character on their progeny, when crossed with native mares of various descriptions.

The Suffolk was, as was to be expected, a decided success

in the Great War. Numerous letters appear in the press amplifying the powers of endurance possessed by the Suffolks. Of these spontaneous testimonials from men in the fighting line, one was very much to the point. After remarking he had come across many different breeds amongst the lines, he says—"before I came to France I was continually being told that it was the feet and legs of a horse of which you must take particular notice; these carry the body and therefore are most important, the carcase being of little account, but now I am a Tommy and have to look after horses myself I am not the least particular about the feet and legs, they will not break, but what I want to see is a good constitution, an easy feeder and a roomy cupboard wherein to stow the food away; no short-ribbed, herring-stomached animal in my lines if I can prevent it." An Artillery Officer in Brigadier-General Holtham's Division, referring to the Suffolk, says:—"He was a big-barrelled, strong-necked, low-bodied horse, with terrific pulling power, and what was more to the point, had a knowledge of how to make the best use of it. One could well describe him as a sort of beefy chestnut Goliath, which pulled anything and everything without much effort and even replaced a team of mules on some occasions."

Of longevity in the Suffolk Breed there are numerous instances. In the history of the Suffolk we find that at one of the early Shows of the Suffolk Agricultural Association a mare was exhibited with a sucking filly by her side, the united ages of which amounted to forty-one years. The filly was, however, we should add, then two years old, but the most reliable evidence was given, which conclusively proved that at the time she was foaled her dam was thirty-seven years old. The mare which bred Webb's *Rising Star* 1266, the first prize horse at Leeds in 1861, was two and twenty years old when the horse was foaled. The dam of Lofft's *Cup-bearer* 824, a mare owned by the Rev. O. Reynolds of Debach, was one of sixteen foals, which he bred from her dam in sixteen successive years.

Those two well-known sires, *Sudbourne Arabi* and *Sudbourne Arab*, are both more than twenty years of age and still standing at the stud to-day, with good results, their produce being still prominent in the Show-ring. Even these patriarchs have some way yet to travel in order to eclipse Julian's *Boxer*, a horse that actually travelled for twenty-five years without a break. The Suffolk can and has been employed for a variety of purposes in his home country and in almost every other part of the universe. For agricultural work he stands out, staunch at the collar, smart in the trace, an easy feeder, and subject to few of the ills to be found, more particularly where length of hair is conspicuous. He may be relied upon to do his bit with easy grace

and with less exertion than one would anticipate and in a tight corner he is not found wanting.

As an agricultural horse the Suffolk has for many years been admitted hard to beat. As a horse for horticultural work and market growing, now so much on the increase, he has additional qualifications. Suffolk breeders have never aimed at producing a horse with a massive spreading hoof, but have rather devoted their attention to breeding an animal with a sound, medium-sized hoof, of the best quality. Engaged in such cultivation the Suffolk has the advantage, for he can pass to and fro on a plot of land without doing the damage a heavier-footed animal must inevitably cause. The same also applies to the working amongst fruit trees, where the Suffolk, especially the lighter class, has been found to render valuable service under the spreading branches of standards and also amongst bushes, where a heavy massive animal is at a disadvantage. Numerous instances could be called to mind of the success achieved by the Suffolk for crossing purposes in East Anglia and also when located far from his native home. Being good doers with a tendency to put on flesh, even with scanty rations, not inclined to be the least affected by the heat of the sun, are qualifications not to be overlooked in a sire, especially when he is enabled to hand on these characteristics to his progeny.

The Suffolk crossed with native mares in our Colonies produces an animal suitable to all classes of farm work and he can in addition be hitched up on Sunday to drive the family to church. Several Suffolk stallions were some fifty years since sold to the present Irish Free State. It may not be generally known that many of the most valuable heavy-weight hunters contained Suffolk blood, the practice being to mate a Suffolk sire with a well-bred thoroughbred type of mare and to put the progeny again to a thoroughbred sire. The result of such breeding produces the quality and staying power of the blood horse with the modified weight-carrying qualifications of the Suffolk, an excellent hunter frequently being the result.

Mr. R. Good, a veterinary surgeon in County Cork, writing in an agricultural paper said—"I consider the Suffolk horse is the best horse for Ireland. I have had a Suffolk stallion for nine years and have bred over ninety mares each year and left eighty per cent in foal. As for breeding hunters, none better. I have a brood mare got by a Suffolk sire out of a half-bred mare, and her produce with a thoroughbred horse make £100 apiece and work of the farm for three years. In fact the half-bred Suffolks I have will do harness work, such as heavy wagonette, with eight or ten persons in it in great style. They are very hardy, have lots of heart for hard work, easy keepers, splendid plough horses, no dirt on their legs after a day's ploughing,

no scratches, grease, etc. Half-bred Suffolks from heavy mares make splendid work horses, being quick and never tiring. I have seen a few results from pony mares, the result is a thick-set cob that can trot ten miles an hour, and easily fed. In fact, I have bred every class of mare, and according to the mares you get, heavy carthorses, vanners, hunters and harness horses."

Sir Wilfrid Blunt, in giving his reminiscence on horse breeding, stated he had been successful in following the Arab and Suffolk cross. The experiment was undertaken, in the first instance, with the object of producing suitable carriage horses for his own use, it being customary for the owner to take long driving tours annually in unfrequented parts of England. So fortunate was he with the produce of the experiment that he says—"In a few years I had the precise animal I required and after six seasons' hard driving, in which they have proved themselves untirable and excellent in every way, I have come to the conclusion they will last me the remainder of my driving days." He further describes them as bright chestnuts with admirable feet and legs and able to trot eight to ten miles an hour and continually cover forty miles a day with ease. A well-known Master of Foxhounds in the Eastern Counties was relating his experience of excellent mounts he had had, and remarked that a certain Suffolk Thoroughbred cross he had ridden for twelve seasons had never had a fall. The Suffolk has frequently been mated with the Shire mare with most satisfactory results, whilst the late Sir Oswald Mosley was very persistent in his praise of the Suffolk-Clydesdale cross.

The Suffolk Punch has always been very limited in regard to numbers when compared with other heavy horse breeds. In the middle part of the last century there is substantial evidence that some stallions were sold for export, but these were few and could not have made a serious inroad on the stock on hand. However, be that as it may, it was not until the publication of the first volume of the Stud Book that the export trade reached any serious dimensions. Australia had been purchasing an occasional animal or two for several years. The same may be said of New Zealand, but about this period Argentina came into the market with orders of from twelve to twenty in a shipment, and this was closely followed by buyers from the United States and Canada.

It has been often remarked of the Suffolk Horse that at the outbreak of War there were few available for Army purposes. This is easily accounted for if reference is made to the Export Certificates granted, as annually published in the Suffolk Stud Book. In this tabulated list will be found not only the name of the animal given but the destination to which it was exported. It will also be ascertained, if a calculation is made of the total

of the number of animals exported and compared with the total number of entries yearly recorded, that the Suffolk Horse Breeders were actually, prior to the Great War, exporting not less than one third of their stock annually bred. Any breed being depleted to such an extent must find it difficult to show a vast increase in their numbers. The produce of the majority of animals changing hands in this country would naturally come forward for registration in some future Stud Book, but animals exported are practically lost.

Thus it was at the outbreak of hostilities, when the demand for Artillery horses was most pressing, that the stock of Suffolk Horses in the country was short, following closely on recent years with a heavy export demand. It must not be supposed that it was only the registered Suffolks that were in request, as many a shipment of Suffolk geldings and half-bred Suffolks, both mares and geldings, were sent from Harwich, their destination being Germany and Austria. Had the numbers of Suffolk horses not been so reduced there is no doubt the East Anglian Breed would have appeared much more in the limelight on continental soil during those sad years of devastation. Although not numerically strong, it was no mean record he obtained.

A striking illustration of this occurred at the Suffolk Agricultural Show held at Ipswich in 1888. The previous year those two well-known stallions Mr. Biddell's *Foxhall* and Mr. Edgar's *Leiston* had been exported to U.S.A. They had been shown and criticised at the Fairs the previous fall, with the result that three influential American buyers in a large way of business made their appearance for the first time at this Suffolk Show. Their object, they stated, was to handle a clean-legged horse and they were of the opinion the Suffolk would fill the bill with their customers. If they created a demand for the Suffolks they must naturally be able to supply the goods, otherwise it was not to their advantage to spend their dollars in building up a market for any breed of which future supplies would not be available. It was estimated that they would require some six hundred head during the forthcoming three years. Eventually it had to be admitted that if their requirements were of such extensive numbers the animals could not be procured. The sequel to this visit was that these three American Importers went direct to France and purchased Percherons, although they admitted they would have preferred the Suffolk, as they considered him the better horse of the two.

Allusion has previously been made to the excellent work and of the highly complimentary reports received of the Suffolk Horses engaged in active service during the War. As a result of such meritorious services rendered, the Army Remount Department decided some three years since to send a Buyer down to the

principal centres of the breed where owners could send in their animals for inspection, and if approved and after passing a strict veterinary examination, they were purchased for Army purposes. After the second batch had been despatched some six months, the Secretary of the Suffolk Horse Society (Mr. Raymond Keer) made enquiries as to how the recently purchased Suffolks had acquitted themselves. A report from the headquarters of the Royal Artillery, 3rd Division, from Bulford was received stating "The Officers consider these Suffolk Punches are, as regards haulage powers, certainly the equal, and in some respects the superiors, of other breeds of heavy horses of which they have had experience. They have performed satisfactorily the normal Artillery work of peace time on Salisbury Plain. They are good doers, and keep their condition on their Government ration, are active, show great perseverance, and maintain a good walking speed. They are easy to train, and are particularly docile, especially in stables. Their clean legs mean less work than with the rough-legged breeds, and the leg diseases most prevalent with the latter are absent."

A recent number of the *Live Stock Journal* contained the following, "Army Officials have, following a Parade of Suffolk Horses at Ipswich and Bury St. Edmunds, purchased thirty-one geldings and gast mares ranging from four to six years old. At each centre goodly numbers of Punches of these ages, and all of them sound, greatly pleased the Army Buyers. The two parades in the east and west of the county were pleasing sights, especially when the uniformity of colour of the whole-red chestnuts, which were active on sound feet and legs, are taken into account. The selected animals were submitted to the severest tests by the Army's inspecting officers and veterinary surgeon, who made favourable comments on the character of the animals. The thirty-one animals selected by the inspecting colonel were true to the breed type and most suitable to take their places in any gun team, for which purpose it is understood they are to be used. Another satisfactory feature of these two parades was that the smaller breeder shared in the sales that were effected at prices which cannot but be regarded as a paying proposition."

The Suffolk Punch is making new friends. In June last a representative party of agriculturalists and pastoralists, numbering some fifty-seven members in all, arrived in this country from South Africa, their object being to gather information as to our methods of agriculture and stockbreeding as well as to investigate the various conditions of marketing the produce. The party consisted of representatives of all parts of South Africa, ranging from the sparsely populated regions in the Northern and Western Transvaal to the more thickly populated districts

in the Cape Province. Mr. W. Callender-Easby, one of the party, contributed an interesting article to the *Field* setting forth the opinion and the impression the British Stock made on his companions and the party collectively. In his allusion to the Suffolk Horse it is stated: "Of the different breeds of cart-horses the Suffolk Punch was a very easy first in the estimation of the party as being most suitable for our conditions, and would undoubtedly be of great value for grading up to light Colonial mares of the country, which in most cases lack in weight and in many cases in courage and docility.

"The Suffolk has these two qualities emphasised in his make-up, and owing to his long line of straight breeding might be expected to stamp those two desirable qualities upon his progeny. His general conformation is also much in his favour, nearly all of them are well ribbed up, short in the coupling and strong in the loins, with beautiful rounded hind-quarters, short, flat, hard-boned legs, and, as bred at present, with good hard blue feet, a very necessary qualification in the Colonies, where horses are seldom shod. For some unaccountable reason a chestnut colour is not liked in our Union, there being a widespread belief that a chestnut horse is nearly always a vicious horse; this is emphatically not the case with the Suffolks, one of their well-proved qualities being docility. I have also heard it said that the Suffolk mare is not the most suitable for mule breeding, being liable to throw mules with heavy, sluggish heads; the Punch is rather heavy in the head and latch, and whilst not being out of place on his own short neck and thick-set body, this head and neck would be fatal on mules, as mules with coarse donkey heads are unsaleable and are usually sluggish and vicious brutes.

"Our party was given an opportunity of seeing several of the noted Studs of Suffolks, notably the Coney Weston Stud, which has at its head that wonderful old horse, *Sudbourne Arabi*, a horse now 21 years of age and still working well. The value of a sire is always found in his progeny, and the Coney Weston Stud contains amongst its young stock some of the most perfect specimens of the breed it has been my pleasure to see, one two-years-old Colt particularly impressed me as being most suitable for the Colonies and especially for South Africa. He is of grand formation, not too heavy, most typical of the breed, wide, level back, beautiful colour, short cannon bone, splendid hard feet; in fact, full of quality, and with it all one of the fastest movers I have ever seen. The matrons of this stud came in for a lot of admiration, and the owner is to be congratulated on having got together such an even lot of well-bred animals.

"The Orwell Park Stud was also visited, and this Stud was seen under unusual conditions, all yoked and shown as they can be seen daily. This manner of showing the animals impressed our

party immensely, and did more to popularise the breed than any other method ; we saw them under ordinary working conditions on the farm, and not under show conditions, and it was here where the party were convinced that the Suffolk was the right horse for our conditions, and it was here where a beautiful specimen of the breed was seen, a stallion, belonging, I believe, to Mr. A. T. Pratt, a gentleman who has done much for the breed. It was regretted that time did not permit of our visiting other noted studs, such as the Bawdsey, the Cressing, the Garston, the Riddlesworth and many others."

Such is the impression of the Suffolk Horse on the impartial minds of our Colonial friends. If breeders will but bear in mind the old princely type, having moderate-sized feet of good quality, and short legs with clean joints, devoid of all tendency to coarseness, possessing a deep well-ribbed-up carcass, with width behind as well as in front, and standing about 16½ h., there will be little to fear from outside competition where'er it may come in the shape of horseflesh or mechanical power. It appears to be human to go after strange gods and some are apt to be inclined to sacrifice everything in the endeavour to obtain greater size. Is it not universally admitted by all horse-breeding authorities that it is much more difficult to breed a big good animal than a small good one ? and the latter is much more likely to be free from unsoundness. Why then strive for an animal 17 h. h. or over with the chance of it being cast in the veterinary examination, especially in the present days when the steam wagon is supplanting the heavier horse for long distances on the road, which is becoming more and more difficult for horse traffic ?

If the Suffolk Horse is bred on the lines indicated he will be found capable of exerting the old endurance at the dead pull, will be blessed with a docile temperament, and marked capacity for thriving on short rations, while no day will be too long at the collar.

With such an animal there is no fear of there not being a place for the Suffolk amongst the numerous vicissitudes of this workaday world. Competition must, no doubt, become more acute in the direction of mechanical traction, but the Suffolk Punch will still be an animal desirable and useful to man.

FRED SMITH.

Woodbridge, Suffolk.

THE USE OF THE DYNAMOMETER IN SOIL CULTIVATION STUDIES AND IMPLEMENT TRIALS.

INTRODUCTION.

IN all competitive trials of cultivation implements the results are interpreted on the assumption that the soil of the field was uniform to begin with. The relative draughts of different ploughs would be assessed by comparing the traces of a recording dynamometer in the hitch between the plough and the horse or tractor, and any pronouncement as to the ease of draught of each plough would be based largely, if not entirely, on these records.

In the case of field experiments, such as manurial or variety trials, the question of soil uniformity is also very important. The inherent natural fertility of a field varies from point to point, and the yields obtained from a limited series of plots receiving different manures cannot therefore be attributed solely to the effects of the added manures. In the modern development of plot technique, this difficulty is to a certain extent met by having several plots for each treatment and by subjecting the results to a special statistical analysis developed for this purpose.

The above two illustrations are typical: either one tacitly assumes the soil is uniform and hopes for the best, or if the possibility of an unknown degree of variation is recognised, one is compelled to make a considerable elaboration of the experiment.

The importance of this subject was brought forcibly to our notice in the course of a series of investigations made at Rothamsted by Dr. W. B. Haines and the writer, on problems connected with soil cultivation. Considerable use was being made of a recording dynamometer in this work, in measuring, for example, the effect of different manures on the resistance offered by the soil to the passage of a cultivation implement. The results obtained were at first more than usually puzzling. They were difficult to reconcile with one another, and with other known facts. On further examination it appeared that the discrepancies might be due to one or both of the following causes: (1) the difficulty of obtaining reliable readings from a dynamometer under field conditions, (2) an inherent lack of uniformity in the soil itself affecting the dynamometer readings and thus obscuring any effect produced by the manures. It therefore became necessary to make special tests of the reliability of the dynamometer under field conditions and also to test the uniformity

of the soil. The former problem—the evolution of a reliable dynamometer technique—presented no special difficulties, but the latter one needed some consideration.

Normally the usual criterion of uniformity is a visual inspection of the area by practical men, supplemented occasionally by a chemical and physical examination of soil samples, taken at regularly spaced intervals across the field. This criterion appeared quite insufficient to us. In the first place a visual inspection can only decide whether the land is reasonably level and free from obvious changes in soil texture, and on this count the fields with which we were concerned would have been unhesitatingly accepted. In the second place, physical and chemical analyses of soil of the number needed, would have involved a prohibitive amount of labour, and in the present state of our knowledge only general inferences could be drawn from the laboratory measurements as to the degree of uniformity of field characteristics. We therefore adopted the direct method of using the dynamometer measurements themselves as an indication of the actual degree of uniformity of a field which passed the visual tests. The results of the experiments, and their bearing on implement trials and field experiments generally, is discussed below.

I THE EVOLUTION OF A RELIABLE DYNAMOMETER TECHNIQUE

The Watson dynamometer has been used throughout the experiments. It is not necessary to describe the instrument in any detail, as it is well known through its employment in various official tractor and implement trials. In its essentials it is a self-recording pressure gauge, and the draught is recorded as a continuous trace by a stylus on a moving paper strip. A time record is also automatically made on the chart by means of a clock which actuates an electromagnet every 10 seconds, causing it to draw a second stylus aside momentarily. The forward motion of the paper is controlled by a flexible gearing from one of the wheels carrying the dynamometer, hence if this wheel runs evenly on the land the connection between distance travelled and amount of chart movement should be constant. Owing however, to the occasional slipping of the land wheel and especially to the adhesion of soil clods to the wheel, the relation is not exact. This was met by introducing an arrangement by which the time stylus would be depressed in a special distinguishing manner from its ordinary motion, and this mark was used to indicate on the chart the exact point at which a plot boundary or other distinguishing feature was passed. When the chart was subsequently examined the existence of these special marks enabled the chart to be divided up into sections that corre-

sponded accurately with the sections or plots in the field itself. The allied matters of the accuracy of the clock mechanism and the spring against which the oil-pressure is exerted were carefully tested and found to be correct.

The actual result given on the chart therefore could be relied upon as a true record of the forces experienced by *the hitch of the plough* during the operation, but it remained to be seen whether this was entirely due to variations in the resistance offered *by the soil itself*.

The record itself shows a very irregular line corresponding to rapid fluctuations in pull, and it was necessary, firstly, to know whether these were due to chance occurrence of stones or similar obstacles, or whether they represented significant differences in the soil that would always reappear in operations over the same spot. Secondly, it was also essential to see how sensitive the record was to changes in speed, depth of ploughing, manner of hitching and slope of the ground, since these factors would probably not remain at an exactly constant value during a test.

The first query was answered by obtaining records of a cross ploughing of weathered furrows, where the first ploughing had been done in sections at different times, and thus gave rise to corresponding differences along the cross furrows. On comparing the traces of a number of contiguous furrows the charts were found to be almost identical, even small variations in the drawbar pull being reproduced each time the same spot was reached. The experiment was repeated on other fields with similar results. No matter what the actual shape of the trace for a given furrow might be, that of the adjacent furrow was closely similar, both in the general shape from end to end and in the minor details of variation.

The second query required separate tests although of course the results of the first query gave, indirectly, strong evidence that the implemental factors remained constant. As we used a tractor throughout, in preference to horses, we were able to keep the variable factors under control more easily. In horse-ploughing the character of the work is largely under the control of the ploughman, who will ease the plough or hold it to its work in accordance with the nature of the land. These would have been additional complications that it was advisable to defer until later investigations. The effect of displacing the hitch and "set" of the plough from their correct positions produced bad work, and had little or no effect on the drawbar pull, unless the depth of ploughing became changed. This latter effect was independently tested.

For the normal range of ploughing depths—i.e. $4\frac{1}{2}$ in. to 6 in. on this land—the drawbar pull was proportional to the depth,

the increase from $4\frac{1}{2}$ in. to 6 in. being about 25 per cent. A correction to the drawbar pull for change in depth of ploughing could easily be made on this basis where necessary. In our experiments, frequent measurement of depth showed no appreciable variation.

The question of the change of slope of the field was examined by comparing the drawbar pull of furrows going up and down the same slope. There was no measurable difference for gradients less than 1 in 40. This result is surprising at first sight, since the extra work on the tractor going uphill is very obvious. But this is mainly due to the effect of raising its own weight, and

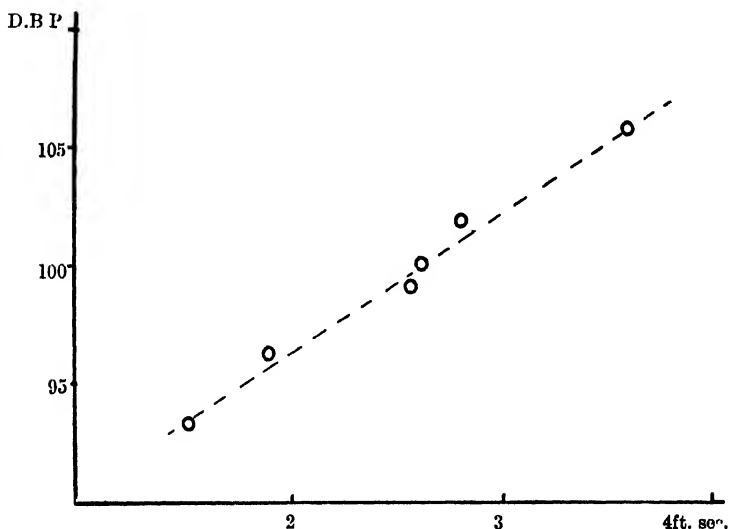


FIG. 1.—Relation between Drawbar Pull and Speed of Ploughing.

is not shown on the dynamometer, which only records the extra resistance due to raising the weight of the plough up the slope, and this is very small in comparison with the resistance due to the soil. On a drawbar pull of 1000 lb. due to the latter effect, the extra pull for drawing a 300 lb. plough up a 1 in 40 slope is only 7 lb.

The remaining factor is the question of speed of ploughing. This is undoubtedly the most important, not in connection with the effect on the dynamometer record, which is relatively small, but with the general economics of land cultivation. This is considered in detail in a separate section below. The small direct effect of speed on the dynamometer record can best be

seen from Fig. 1, which illustrates tests over the maximum range of the tractor. For convenience the value for normal or standard speed—2.5 ft. per second—has been put as 100. The test was made under rigid conditions so as to eliminate from the results such factors as soil variations which affect the drawbar pull, and each point on the diagram represents the mean value of about 9 comparisons between that speed and the standard one. It will be seen that the relation is linear and that the drawbar pull changes but little for a large change in speed. An increase from $2\frac{1}{2}$ to 4 ft. per sec., for instance—which would mean an increase of 60 per cent. in area ploughed for a given time—only increases the drawbar pull by 8 per cent. For unavoidable changes of speed likely to occur in an experiment, the effect on the dynamometer record is therefore negligible.

II. A TEST OF SOIL UNIFORMITY.

The area selected for this test was a 6-acre portion of Sawyer's Field, which, except for one slight dell, was level and showed no obvious irregularities of any kind. The whole field had received uniform treatment for many years. The ploughing was done on a clover sod that had been twice cut for hay. The area was divided into square plots of one chain side and the boundaries in one direction were marked as ridges in setting out the ploughing lands. Since all the ploughing could not be done in one day, rather less than half of each land was ploughed before the dynamometer was attached. The test furrows therefore ran approximately through the middle of each half-plot. The experiment was done on a dull day in September, 1924, and the dynamometer records for each half-plot are the average of several contiguous furrows in each case. During the experiment, as a precaution to equalise the possible effect of such changes as drying out of the land on the drawbar pull, the whole field was systematically worked across twice. The weather conditions, however, were such as to make this possibility negligible. The final mean values of the drawbar pull for each half-plot are given in Table I. For convenience of reference the plot divisions were marked consecutively from 1 to 8 along one edge of the field and lettered from A to K along the adjacent edge, so that any plot can be specified by a combination of the appropriate number and letter.

A glance at the table shows that wide variations occur in the drawbar pull of different plots. These are not due to differences in moisture content across the field, as measurement of these values showed a remarkable uniformity. The general trend of the drawbar pull changes is best seen in a graphical form. In Fig. 2 regions of equal drawbar pull have been joined

TABLE I.—DRAWBAR PULL VALUES (LB.) ON SAWYER'S FIELD.
RANSOME TWO-FURROW PLOUGH. AUSTIN TRACTOR.

Plot.	1	2	3	4	5	6	7	8
A. Down .	1,236	1,258	1,260	1,282	1,301	—	—	—
Up .	1,233	1,260	1,275	1,277	1,335	1,383	—	—
B. Down .	1,293	1,296	1,282	1,304	1,409	1,428	—	—
Up .	1,231	1,331	1,275	1,262	1,340	1,380	—	—
C. Down .	1,257	1,285	1,282	1,270	1,375	1,375	—	—
Up .	1,342	1,287	1,328	1,337	1,456	1,419	—	—
D. Down .	1,380	1,337	1,345	1,470	1,529	1,475	—	—
Up .	1,363	1,374	1,356	1,464	1,638	1,712	—	—
E. Down .	1,315	1,363	1,349	1,493	1,665	1,575	—	—
Up .	1,378	1,386	1,444	1,544	1,513	1,537	1,500	—
F. Down .	1,296	1,333	1,368	1,384	1,477	1,507	—	—
Up .	1,263	1,269	1,292	1,317	1,579	1,428	1,441	—
G. Down .	1,275	1,288	1,317	1,366	1,526	1,370	1,259	—
Up .	1,236	1,219	1,294	1,333	1,522	1,394	1,265	—
H. Down .	1,232	1,246	1,275	1,382	1,329	1,350	1,273	—
Up .	1,208	1,241	1,265	1,335	1,362	1,382	1,342	1,310
J. Down .	1,158	1,250	1,243	1,263	1,288	1,353	1,328	1,291
Up .	—	1,082	1,171	1,220	1,250	1,190	1,238	1,209
K. Down .	—	1,174	1,215	1,218	1,225	1,242	—	—

by lines on a scale plan of the field. The figure thus has the appearance of an ordinary contour map, in which the "hills" and the "valleys" correspond to high and low drawbar pulls respectively. The method of drawing these contour lines was to assume that the mean value of the drawbar pull for each plot was the true one for the centre of the plot, and, further, that the drawbar pull gradient to the contiguous plots was quite smooth. Although this convention results in a considerable smoothing out of the smaller variations, which, as shown in the first section of this paper, could be perfectly legitimate deductions from the data, it has the advantage of focussing the attention on the really vital differences. The term "isodyne" has been adopted as a convenient description of these "contour" lines of equal drawbar pull.

The evidence of Table I and Fig. 2 is very significant, and shows that as far as the physical properties are concerned, an assumption of a uniform soil would have been far from correct. The range of variations in the drawbar pull is no less than 40 per cent. The question of the reliability of these results has already been considered in the preceding section, and no doubt arises on this score. In addition, the ease with which the isodynes could be drawn through the drawbar pull values is evidence of the constancy of the implemental factors during the experiment. Any such variations from furrow to furrow would show up as a

tendency for the isodynes to run more or less parallel to the direction of ploughing, and it would be difficult to tell from Fig. 2 in which direction the ploughing was done. Only in the case of the F strip is there any such indication, and the direction of the isodynes here is partly due to the plough accidentally

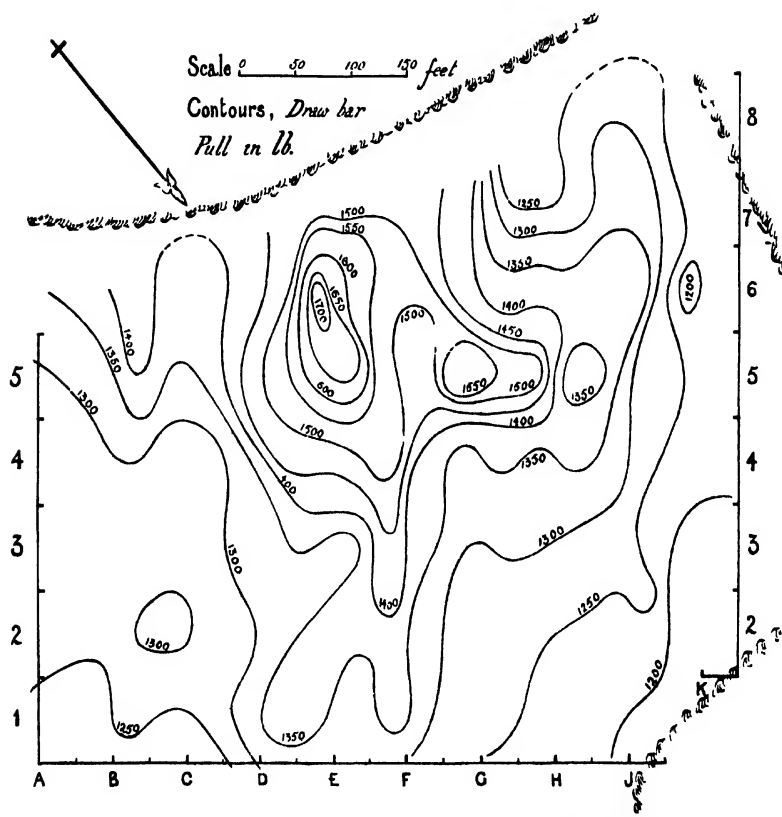


FIG. 2.—Distribution of Drawbar Pull (isodynes) over Sawyer's Field

N.B.—Strip A extends between the points marked A and B, Strip B between the points B and C, and so on. The left half of each strip is the one denoted in Table I as ploughed "down," and the right half "up"

pulling out of its work, and some of the readings were affected in consequence. An additional proof of the reliability of the results was given by a statistical examination, in which the probable error for the values of the drawbar pull gradient from one plot to the next was calculated for a number of cases taken at random. The values ranged around 10–20 per cent., with a

few exceptional cases, such as plots at the beginning of a furrow where irregularities are always greatest. The direction of the gradient therefore is always significant and its value is correct to at least one part in five.

The full implication of these results can be realised if this field had been used for a competitive implement trial, in which each plough would have been allotted to a strip running the whole length or width of the field. We can get a close approximation to the average values that would have been given by *the same plough* on each strip by comparing the averages for the columns (or the rows) in Table I. These values are shown in Table II.

TABLE II—AVERAGE DRAWBAR PULL FOR STRIPS ACROSS THE WHOLE AREA

	Strip A	B		C	D		E
Average drawbar pull, lb)	1 267, 1,297	1 335	1 303	1,307, 1,345	1,423, 1,485	1,460, 1,479	
	Strip F	G		H	J		K
Average drawbar pull, lb)	1 394, 1 370	1 343	1 325	1,299 1 306	1 272 1 194	1,215	
	Strip 1	2	3	4	5	6	7
Average drawbar pull, lb)	1,276	1 279	1 297	1 343	1 428	1 417	1,337

These results show that, in spite of the additional smoothing due to averaging the drawbar pull for the whole length of the strip, very considerable differences still remain. If the lowest value for drawbar pull in each of the two sets of strips be taken as standard, the increase in drawbar pull rises to a maximum of 12.4 per cent or 11.2 per cent according to whether the strips were taken up and down or across the field. The gravest injustice would have been done had the field been used for a comparative test of different ploughs, since differences in drawbar pull of as much as 11–12 per cent would have been due, not to any merit of design, but solely to the chance of which particular strip of the field was allotted to each implement. When one remembers that even in the present stage of development of power-drawn implements, the immediately attainable reduction in draught due to improvement in design is not likely to exceed 5 per cent, there is obvious danger in assuming that because a field looks uniform it is in reality so, and is therefore suitable for such trials.

Hence, in any such work special precautions are necessary if reliable results are to be obtained. The most desirable solution would be to find, by a preliminary trial, an area over which the dynamometer values are reasonably uniform. Such areas

do exist ; in fact one field less than 600 yards from the one considered above showed great regularity, the drawbar pull over a considerable portion having a variation of only two or three parts per thousand. There was no *a priori* reason to expect this uniformity, especially as the field has for many years been in use for manurial experiments. In the event of a uniform field not being available, two methods may be suggested for eliminating the effect of soil variations in a competitive implement trial. One method would be for one furrow to be ploughed by one implement, the next by another, and so on in turn until the work was finished. Since, as shown above, the natural soil variations from one furrow to the next are comparatively small, a comparison could safely be made between the drawbar pull of one implement for a given furrow, and that of another implement for the immediately adjacent furrow. For each pair of implements there would be a number of these comparisons of contiguous furrows at regular intervals across the field, and the averages of these would give a reliable indication of the respective draughts of the two ploughs. A similar comparison would be made between the second and the third implement, the third and the fourth, and so on.

An alternative course is to make a preliminary survey of the whole area, using one plough, and to construct from the results an isodyne map as indicated above, which would be used to correct the recorded draughts of the competing implements for the effects due to the soil variations. In this type of trial each implement would be allotted to a separate strip or "land." The preliminary survey could not be made immediately before the trials for obvious reasons. In some cases it could be made some little time before, and the competing implements set to work the cross furrows, but usually the preliminary survey would have to be made in the previous season. The question at once arises whether the isodynes are permanent or whether their position differs from one ploughing to another, owing, for instance, to seasonal factors. Although a full answer to this question is not yet possible, dynamometer records that have been obtained on other fields at Rothamsted in successive seasons indicate that no serious seasonal effect is likely to occur, provided the whole field has been treated uniformly in the matters of cultivation, manuring, and cropping in the interval. Any such effect is more likely to show as a proportionate raising (or lowering) of the drawbar pull values over the whole area rather than in any serious differential effect between regions of high and low drawbar pull. This question will, however, be followed up in detail.

In addition to their important bearing on implement trials, the above results must be considered in their relation to field

experiments. The drawbar pull variations are a reflection of corresponding changes in the physical properties of the soil over the field, and such properties have an influence on the growth and yield of crops. Hence in field experiments the yields for any one plot will be the resultant of the inherent soil and climatic conditions and the particular manuring. We have already mentioned that in modern field plot technique it is necessary to have a considerable number of replications of any given treatment, to arrange for a random distribution of the plots, and to submit the results to a special statistical analysis. Unless these precautions are taken errors will occur great as those already discussed for implement trials. On the other

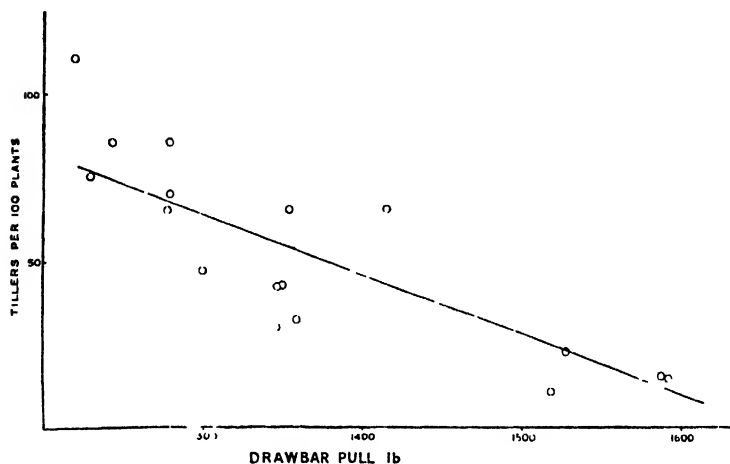


FIG. 3.—Relation between Drawbar Pull and Tillering Percentage.

hand, if the direct relation between the soil conditions and the yield of the crop be known, it may be possible either to reduce the number of plots for each manurial treatment—with a corresponding saving in labour and expense—or to obtain, with the same expenditure of effort as before, a more accurate result.

The portion of Sawyer's Field used for the uniformity trial is therefore being kept under close observation from this point of view. After the dynamometer measurements were made the land was prepared for winter wheat. Measurements made by Messrs. T. Eden and E. J. Maskell on sixteen representative plots showed that a close relationship existed between the early stages of plant growth for each plot and the corresponding drawbar pull. Thus the number of plants present on a given plot (i.e. the number surviving the winter) was greatest on those

plots that had low values for the drawbar pull. Measurements at a later stage showed that the percentage of plants that had tillered on each plot was also closely inversely related to the drawbar pull. The degree of correlation can be seen from Fig. 3, in which the percentage of tillered plants is plotted against the corresponding drawbar pull. It is not usual in field experiments to obtain such close relationships. As the plants increased in size the close relationship between growth and drawbar pull gradually disappeared. Although there were considerable variations in the figures for grain and straw over the complete range of plots, they did not show the statistically significant relation to drawbar pull of the earlier measurements. Whether this indicates that the physical factors become of less importance, or whether other factors, such as spacing and competition, become predominant in the later stages of growth, cannot be determined without further work over a range of seasons. The past season was abnormal in certain respects, and some natural differences from plot to plot were in all probability greatly accentuated, while others were reduced.

III. SOME ECONOMIC ASPECTS.

In Section I, dealing with the evolution of a reliable dynamometer technique, the question of the speed of the implement was mentioned. It was shown that for ploughing, an increase of the speed from $2\frac{1}{2}$ miles per hour to 4 miles per hour—an increase which would mean a 60 per cent. greater area ploughed in a given time—was attended by only 7 per cent. increase in the drawbar pull. It is highly unlikely that the cost of the extra fuel needed for this purpose would be more than a small fraction of the saving in labour costs per acre resulting from the increased speed. Hence increased speed should mean considerable saving in expense. With our present implements a limit is set, however, by the bad work done by a plough moving too quickly, and by the excessive wear and tear on the tractor. There is therefore a promising future for implements and tractors which would work at higher speeds, and the necessary modifications in design and the confirmatory experiments should be well within the scope of the agricultural engineer, especially as speeds of six miles per hour have for many years been employed in steam cultivation.

In arriving at the precise significance of increased speed in reducing costs it is necessary to pay careful attention to the method of comparing the results. The usual expression for the work done—force multiplied by distance, or in our case, drawbar pull multiplied by distance ploughed—is not suitable, since it does not take into account the manner in which the drawbar pull is produced by the tractor. The matter may be illustrated

by considering the case of ploughing up and down the same slope with all controls kept constant. We have already seen (p. 33) that the drawbar pull is practically the same in both directions. Hence, if the usual expression for work done—force multiplied by distance—were employed there would be no appreciable difference in the two values. But the total power output of the tractor is very different in the two cases and shows up unmistakably in the slower speed of ploughing uphill. As another illustration, consider the simple case of ploughing on the flat. The same value would be given for the work done if drawbar pull multiplied by distance ploughed were used, whether the tractor wheels were slipping or not, whereas the power output would be greater in the former case. These considerations show that the measurement should be made on a time, rather than a distance, basis, and we have used the product of the drawbar pull and the time in seconds taken to plough a 1-ft. length of furrow as a measure of the output. This product can be called the “power-factor.” By its definition it is obviously closely related to the fuel consumption, and we are now investigating this point. The assumptions involved in taking the power-factor as equivalent to fuel consumption are: (1) that over the normal rating of the tractor engine a given drawbar pull corresponds to a certain rate of fuel consumption, and (2) that this rate is simply proportional to the drawbar pull. The direct and accurate measurement of fuel consumption, especially in short runs, is somewhat laborious, and the power factor has therefore certain advantages since it is automatically obtained from the traces on the dynamometer chart.

The power factor is of special use in comparing the results given by the same tractor and plough in any one series of experiments, and since it includes the speed it is a more sensitive measurement than drawbar pull alone, which we have already seen is but little affected by speed changes. It is also of use in comparing relative costs in experiments where different implements and soils are involved.

GENERAL CONCLUSIONS.

Provided that careful attention is given to adjustments in the dynamometer, the variations in drawbar pull obtained on the chart can be definitely ascribed to variations in the soil resistance. A careful examination was made of the effects on the drawbar pull produced by changes in various factors that might alter during the course of an experiment. Variations in hitch and set of the implement have no measurable effect on the drawbar pull unless the depth of working is affected. Tests on adjustment of depth alone showed that over the normal range the drawbar pull was proportional to depth. The slope of the

land is without effect on the drawbar pull for gradients up to 1 in 40. The effect of speed is also slight, and an increase from $2\frac{1}{2}$ to 4 miles per hour—which means a 60 per cent. greater area ploughed in a given time—occasions only a 7 per cent. increase in drawbar pull. It is unlikely that the cost of the extra fuel needed to sustain this 7 per cent. increase would be more than a small fraction of the saving in wages, etc. In many districts the opportunities for autumn cultivation are restricted, and it is imperative to take advantage of every opportunity if the winter-sown crops are to be got in. This is an additional reason why the question of increased speed of working of tractors and implements should be seriously taken up by agricultural engineers and designers.

In this type of investigation some measurement in addition to drawbar pull is necessary. The usual expression for work done is the product of the force and the distance, which in the present case is the drawbar pull multiplied by length of furrow. This is unsuitable since it does not take into account the special manner in which the drawbar pull is produced by the tractor. We have therefore employed the "power-factor," which is defined as the product of drawbar pull and the time (in seconds) taken to plough one foot length of furrow. In many cases this factor is more sensitive than drawbar pull alone. It is closely related to fuel consumption and can therefore be used when the costs of various operations are being compared.

With the evolution of the reliable dynamometer technique described in Section I, it became possible to study the degree of uniformity of soil resistance on different fields. The results showed that visual inspection was quite unreliable as an indication of uniformity. Thus, on one field that would have been unhesitatingly accepted by a committee of practical men as quite suitable for competitive implement trials, there were gross variations in drawbar pull, while on another field, less than 600 yards away, the drawbar pull was remarkably uniform. The variations in the former field were more than sufficient to have masked any differences due to superior design, and had the results been used as a basis of assessing the relative merits of the competing implements, the gravest injustice would have been done. There is therefore a necessity for a preliminary dynamometer survey before such a trial, or, alternatively, special means must be adopted in the trial for distributing the soil irregularities fairly among the competing implements. These differences in drawbar pull persist from year to year, and their general distribution is not affected, but it is not yet certain whether seasonal effects bear equally on all types of soil and systems of manuring.

The essential importance of a reliable dynamometer technique and a previous knowledge of the variations across the proposed

test-field do not appear to have been hitherto realised. This is a disconcerting thought, since it has been generally understood that these trials are thoroughly practical and provide data from which reliable answers to both economic and practical questions can be given.

The changes in drawbar pull across a field are a reflection of corresponding changes in the physical properties of the soil. The latter have an effect on the growth of plants, hence we find a relationship between drawbar pull and plant growth, especially in its early stages. Thus the number of plants of winter-sown wheat that survived the winter was greatest on those plots having the least drawbar pull, and the same relationship held for percentage of tillered plants. As growth proceeded, the closeness of the relationship fell off, until at harvest, although there were considerable differences in yield from plot to plot, they were not related significantly to the drawbar pull. The experiments discussed in this paper are being continued over a complete rotation in order to ascertain the effect of season on the results from the point of view of the soil and the response of different crops.

I am indebted to the Cambridge University Press for permission to reproduce Figs. 1 and 2, which have already appeared in the *Journal of Agricultural Science*.

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A NOTE ON THE COST OF MOLE-DRAINING.

MOLE-DRAINING is of particular interest at the present time when no other form of land drainage is financially possible, and it would be of great value to farmers if details of the cost of the different processes in use were available. The days when the work was done by a cable and windlass are gone, probably for ever, and though there are those still living who remember the time when teams of ten, twelve and even sixteen horses, harnessed direct to the plough, supplied the necessary power, it is unlikely that this motive force can compete on equal terms with mechanical power to-day. In fact, for practical purposes it may be said that the means available to the farmer desirous of mole-draining are limited to three: (1) direct haulage by the agricultural tractor; (2) haulage by cable and two steam-engines (on the principle of the steam plough); (3) haulage by cable and one engine, a horse team being employed to draw out the cable and to bring the mole-plough down to the starting-point of each drain.

Comparative data as to the present-day cost of these three methods do not appear to have been collected.

The probability is that work done by the agricultural tractor is the cheapest, and that in many cases, where conditions are favourable, direct haulage is also the best. No generalisations, however, are possible, and in other cases there is no doubt that certain advantages may be claimed for the use of steam power applied through a steel cable by a stationary engine. These may be summarised as follows :—

1. Greater power is available, resulting in a more even and steady pull on the mole-plough. The pull is independent of the nature and condition of the surface, and the drains can be carried through boggy land which would not support a tractor. A mole of greater diameter can be used, and the drains can be made deeper where desirable.

2. The plough can be more easily driven in a straight line ; the drain is thus more efficient and less liable to become silted up, there being fewer bends to check the flow of water and thus to cause deposit of sediment.

3. Less injury is done to the land by the draining operations. Since draining is best done in winter when labour is available, and when the soils are most easily damaged by such a heavy machine as a tractor, this is a point of considerable importance.

Of course, the relative advantages of haulage by tractor and by steam power depend on the circumstances of each case. Where the fields are large, and the slopes uniform, steam haulage would seem to have the advantage both in point of efficiency of working and of economy. The greater diameter of the mole and the straighter drains would tend to prolong their useful life, and any consideration of cost is manifestly incomplete without taking this factor into account. Where, on the other hand, the fields are small and the slopes irregular, but where the surface is firm, direct haulage by tractor has certain obvious advantages on account of its being less cumbersome.

For mole-draining by steam power it is not necessary to employ two engines as in steam ploughing. In fact, there is a definite advantage to be got by using a single engine passing along the highest part of the land to be drained and pulling the mole-plough through the ground to itself. The implement is dragged back to the lower end of the field by a team of horses while the engine is moving on to the next position. By the courtesy of Mr. A. H. Cornish, of West Farm, Eaton, Berkshire, it is possible to supply full costs and details of mole-draining carried out by him in this way on 87 acres of low-lying grass-land adjoining the river Thames during the spring of 1925. In the fields dealt with the subsoil consists of typical Oxford clay, and it is interesting to note that the same fields were previously

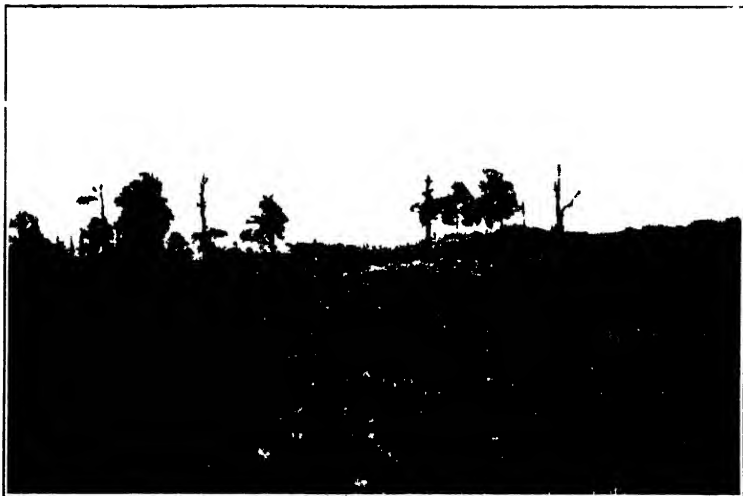


FIG. 1 Ploughing out Furrow Slits along the Lines of the Drums



FIG. 2 Mole plough ready to enter the Ground

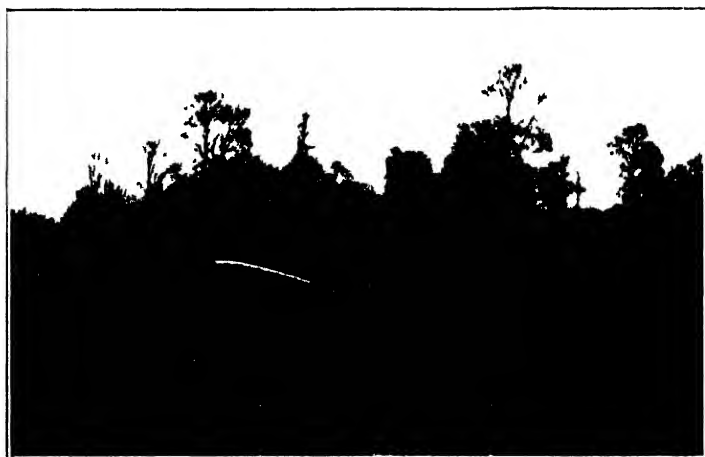


FIG. 3 Steering the Plough



FIG. 4 Plough leaving the Ground at the Head of the Drain



FIG. 5 View of Field showing Mole Ends opened out for connection with Main



FIG. 6.--Mole End opened out ready for connection with Main.

mole-drained by Mr. Cornish's father in 1882, and that some of the old drains were running freely in 1925. The old mole-drains were drawn at a depth of 18 in., the diameter of the bore being $3\frac{1}{2}$ in. Their remarkable efficiency may be attributed to these factors together with the character of the subsoil.

Method of Operation.—All the fields were grass-land, and the work was commenced early in April. In the first place, the course of the mole-drains was marked by turning over a furrow slice with an ordinary plough; this acted as a guide for the haulage cable and provided a groove in which the beam of the mole-plough rested. An old-type plough was used, made by a local wheelwright, the mole being $3\frac{1}{2}$ in. in diameter and set to work at a depth of 18 in. Three horses were used to drag the plough to the point where the mole should join the main drain. The mole was made to enter the ground by raising the stilts and starting to wind the cable. The number of men required to control the plough varies according as to whether the course of the drains is straight or curved. In the former case two men were needed, whereas up to six men might be required in the latter case, three of whom would be employed in keeping the haulage cable in the furrow by the use of stakes, while the others controlled the course of the plough by exerting leverage by means of poles passed through the stilts.

After the moles were drawn, the furrow slices turned over at the beginning were turned back, straightened out and rolled. Mr. Cornish states that the extra cost involved in this operation is amply justified by the results. The cut made by the mole-plough is in this way covered up and the turf consolidated over it. In the event of a dry spell during the following summer these cuts are liable to gape rather badly, and falling earth may choke the drains; when covered over in the above manner this danger is to a great extent eliminated. The actual drawing of the moles was completed in four days, i.e. at a rate of nearly 22 acres per day.

Pre-existing mains were utilised practically throughout. In one field, however, it was found necessary to put in a new main, and to provide an artificial fall. Old mains are often to be met with in land requiring drainage, and their use, when possible, effects a material economy. Pipes were laid in the mole-ends at the points where they joined the mains, sometimes three or four only being needed; in wet ground, however, the bores were opened out, and pipes carried through to the firmer soil. All the outfalls were walled up on the ditch face, and new pipes inserted at the outfall ends of the mains, provided with iron gratings fixed in cement in the walls to prevent the entrance of rabbits, etc.

Cost.—The consideration of cost involves an appreciation of

the position of the farm relative to the proximity of a railway station and to sources of supply. This has an important bearing on the cost of carting and on the price of various articles required. In this case materials had to be carted five miles.

In the following statement the costs have been divided as follows: (i) cost of mole-draining; (ii) cost of mains, main connections and outfalls; (iii) cost of incidental works. Nothing has been charged for supervision, which was undertaken by Mr. Cornish himself.

(i) COST OF MOLE-DRAINING.

		£	s	d.	£	s	d.
Ploughing out furrows . .	Man days, 4 @ 5/6 .	1	2	0			
	Boy days, 4 @ 2/6 .	0	10	0			
	Horse days, 12 @ 3/6 .	2	2	0			
					3	14	0
Hire of engine		19	0	0			
Coal consumed	2 tons @ £2 .	4	0	0			
Carting coal	Man days, 2 @ 5/6 .	0	11	0			
	Horse days, 2 @ 3/6 .	0	7	0			
					23	18	0
Attending mole plough . .	Man days, 18 @ 5/6 .	4	19	0			
	Horse days, 12 @ 3/6 .	2	2	0			
					7	1	0
Turning back furrows . .	Man days, 3 @ 5/6 .	0	16	6			
	Horse days, 3 @ 3/6 .	0	10	6			
Straightening up furrows .	Man days, 11½ @ 5/6 .	3	3	3			
Rolling furrows	Man days, 2 @ 5/6 .	0	11	0			
	Horse days, 4 @ 3/6 .	0	14	0			
					5	15	3
Allow for use of implements					2	0	0
Total Cost of Mole draining					£42	8	3

(ii) COST OF MAINS, MAIN CONNECTIONS AND OUTFALLS

		£	s	d.	£	s	d.
Opening mains and main connections and constructing outfalls —							
Farm hands	Man days, 9 @ 5/6 .	2	9	6			
Two drainers	744 hours @ 10d .	32	5	0			
					34	14	6
Cost of pipes	900 × 2 in } 250 × 3 in } 350 × 4 in }						
		13	15	0			
Carting pipes 5 miles	Man days, 9 @ 5/6 .	2	9	6			
	Horse days, 9 @ 3/6 .	1	11	6			
					17	16	0
Filling in mains and main connections	Man days, 31 @ 5/6 .				8	10	6
Carting stones for outfall ends	Man days, 1 @ 5/6 .	0	5	6			
	Horse days, 1 @ 3/6 .	0	3	6			
					0	9	0
Iron gratings for outfall ends					1	0	0
Total Cost of Mains, Main Connections and Outfalls					£62	10	0

(iii) COST OF INCIDENTAL WORKS

		£	s	d	£	s	d
Hedge Brushing	Man days, 6 @ 5/6				1	13	0
Deepening ditches	Man days, 10 @ 5/6				2	15	0
Fencing off outfalls	Man days, 6 @ 5/6	1	13	0			
40 oak fencing posts		3	0	0			
1 cwt wire		1	4	0			
Carting fencing posts	Man days 2 @ 5/6	0	11	0			
	Horse days, 2 a 3/6	0	7	0			
						6	15 0
Total Cost of Incidental Works					£11	3	0

SUMMARY OF TOTAL COST OF DRAINING 87 ACRES

	Total.	Per cent.
	£ s d	
i Mole draining	42 8 3	36 2
ii Mains, Main Connections and Outfalls	62 10 0	54 4
iii Incidental Works	11 3 0	9 4
	£116 1 3	100 0

The cost per acre amounts to £1 6s 8d, and it will be noted that little more than one-third of it is attributable to the actual process of mole ploughing and work incidental thereto. Were it not for the fact that the existing mains were largely serviceable again the cost of the second item would have been much higher and the percentage cost of the mole ploughing would have been lower still. On the other hand, expenditure on incidental works will vary according to circumstances and might be reduced in some cases, but it is difficult to conceive any practical instance where these charges will be entirely absent, even though items such as hedge brushing and ditching be regarded as belonging to the normal farm expenses.

Few people, probably, realise how the cost of the work subsidiary to the main operation mounts up. The connection of the plough bores with the mains, the construction of mains and outfalls, the incidental work such as fencing off outfalls, deepening ditches, &c., these things constitute the larger part of the job. In fact, the actual drawing of the mole plough through the land may represent less than one fifth of the total cost of draining the field. In these circumstances there is a danger of overemphasising the economy of this or that method of making the bores, for the greater part of the total cost remains the same for every process, and thus it may happen that the most efficient method is passed over in an attempt to secure what is really only a trifling advantage in cost. In cases similar to that described above, where there were old mains still serviceable for the most part, it is likely that the agricultural tractor would be a cheaper and more convenient motive power.

than the steam engine, though on the land in question parts of the fields would have been too soft to carry a heavy tractor, and the steam engine and cable was the only method possible. The accompanying plan, showing the lay-out of the work, marks the occurrence of boggy land where the moles themselves had to be opened up for half a chain or more, and piped, and in these places a tractor would soon have dug itself in.

The work described in this note affords a valuable example of what can be done by enterprise and ability. The plough (see Fig. 2) was made locally, some years ago, to the specification of Mr. Cornish, senr., who had the mole itself manufactured in Sheffield. The engine was hired for the occasion, thus saving contract profits, and the whole planning and supervision was undertaken by Mr. A. H. Cornish himself. The writers desire to record their great obligation to him for the care with which he recorded the various operations and their cost, and for his kindness in allowing the figures to be made available for general information. They also have to thank their colleague, Mr. G. Frecheville, for the illustrations reproduced in the article.

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THE COMPARATIVE COST OF MANGOLDS AND SILAGE.

ONE of the most interesting developments in cattle-feeding practice of recent years has been the increase in the use of silage as a substitute for the whole or some part of the root crop. As a food-stuff it was not unknown to an earlier generation, for considerable attention was given to the manufacture of grass silage in substitution for hay following the wet years associated with the earlier stages of the great Agricultural Depression. The grass was cut and carted while still green into stacks, where it was weighted down with earth and stones or otherwise consolidated by some mechanical means. Even to-day simple machinery in the form of winches used for straining wire ropes laid over these grass stacks are to be met with here and there lying about the stack yard, and quite good silage was made by these means. But the process obtained no permanent place in English farm management. Summers in which hay cannot be got are rare, and silage cannot replace the hay crop for every purpose in live-stock feeding. This form of fodder has now,

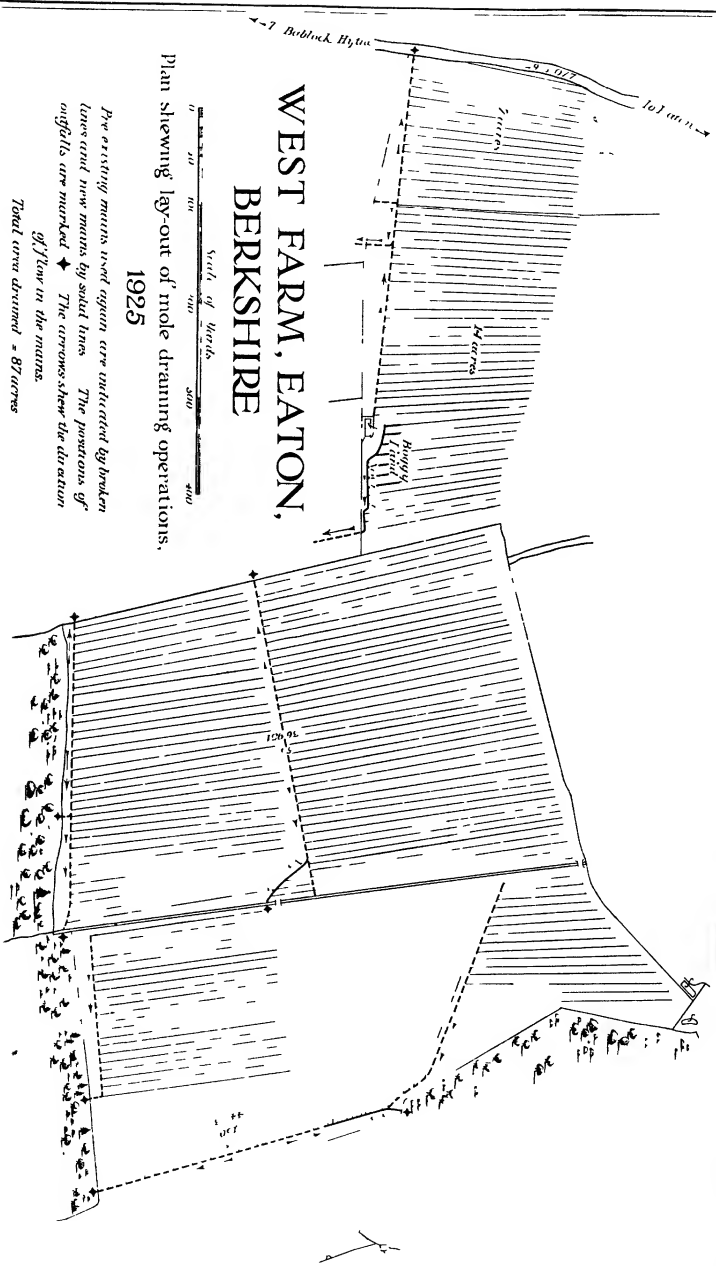
WEST FARM, EATON, BERKSHIRE

Plan shewing lay-out of mole draining operations,
1925



Pre existing drains used again are indicated by broken lines and new drains by solid lines. The positions of outfalls are marked +. The arrows show the direction of flow in the drains.

Total area drained = 87 acres



however, reappeared in another shape. Following an American practice, a number of farmers are now diverting part of their root break to the growth of special crops for ensiling. Grass is no longer used, but mixtures of legumes and white straw crops, maize, etc., are cultivated expressly for this purpose. Another variation in the earlier practice is concerned with the silo. Stack silage, clamp silage and pit silage are still produced, but probably the larger number of those who are engaged in its production erect a structure especially to hold it, constructed either of wooden staves or of reinforced concrete. The green crop for filling these silos is passed through a chaff-cutter and then delivered through a blower into the silo.

There is no doubt that farmers who are going in for this practice are impressed by the high cost of root growing under present labour conditions. The cultivation necessary for cleaning the land, the operations of horse-hoeing, singling and side-hoeing, the clamping of roots and subsequently cutting them for stock all combine to make the root crop very expensive to the farmer. On the other hand, the bulky silage crops grown in substitution for it eliminate much of this work. It is true that the seed costs more, but there must be a considerable saving on manures and cultivations. Against this, however, must be set the cost of cutting and carting heavy crops of green fodder and of chaffing them and filling the silos, not to mention the charge for interest and depreciation on the capital invested in the silo itself (*see* p. 58), which may be very heavy in the case of a wooden structure.

As to feeding value, much useful work has been done at Cambridge and elsewhere¹ on the relative value of silage and root crops, and there seems to be no doubt that silage can be substituted quite successfully for a crop such as mangolds in the compilation of feeding rations both for cattle and for milking cows. Thus, what is now required is the compilation of data on the comparative costs of roots and silage. The farmer knows that he can grow a heavy weight of fodder crops; he knows that silage made from them can be introduced into a feeding ration as a substitute, in whole or in part, for roots, with satisfactory results so far as the production of meat or milk is concerned. The point upon which he still waits to be informed is the financial advantage, if any, attaching to the substitution.

Upon this important question practically no work appears to have been done, and in view of the growing interest in silage it is desirable from every point of view that information on this head should now be collected as widely as possible. Nor is the

¹ "Crops for Ensilage," A. W. Oldershaw, *Journal of the Royal Agricultural Society*, Vol. 84 (1923).

question merely that of compiling costs for growing and handling the alternative foods ; there is also the important question of the amount of loss incurred between the times of harvesting and of feeding the crops. How many farmers realise that the weight of green material filled into the silo may be as much as 50 per cent. more than the weight of silage ultimately fed to the stock ? Yet there is good reason (see *post*) to believe that this is often the case. The advantage of any new process in farm management, or of any variation of established processes, cannot be regarded as having been demonstrated merely by showing that it is technically possible and scientifically sound ; it is vital to show, at the same time, that it is economically advantageous to the farmer.

It cannot be claimed for silage that the demonstration of its usefulness has reached this point. The technical and scientific problems involved in its production have received much attention, but the economic problem has still to be attacked. The object of this article is to draw the attention of investigators to this aspect of the work, as the only recorded case where any comparative figures have been collected raises a very serious doubt as to the economy of silage production. During the three years, 1922, 1923 and 1924 careful costing of silage and of mangolds was undertaken on the South-Eastern Agricultural College Farm at Wye, and the figures are anything but favourable to silage regarded as a cheap food. For purposes of comparison the costs have been divided into : (1) those incurred in growing the crop ; (2) those incurred in subsequently handling it ; (3) overhead and general expenses ; and the results obtained are indicated in the following Tables I and II :—

TABLE I.
COST OF MANGOLDS (1922-24).

	1922				1923				1924				Average of 3 years			
	Per acre		Per ton		Per acre		Per ton		Per acre		Per ton		Per acre		Per ton	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Cultivations, etc. . . .	14	3 10	0 11	7	11	18 7	0 13	1	12	17 4	0 5	10	12	19 10	0 9	0
Handling the crop . . .	3	10 0	0 2	10	5	18 3	0 6	5	6	3 7	0 2	10	5	4 0	0 3	7
Overhead and general expenses	1	8 8	0 1	2	1	18 9	0 2	1	2	14 6	0 1	3	2	0 8	0 1	5
Total . . .	.£	19 2 6	0 15	7	19	15 7	1 1	7	21	15 5	0 9	11	20	4 6	0 14	0

TABLE III.
SUMMARY OF YIELDS (PER ACRE) AND COSTS (PER TON) OF MANGOLDS AND
SILAGE, 1922-24

	1922		1923		1924		Average of 3 years	
	1922		1923		1924		Average of 3 years	
	Yield	Cost	Yield	Cost	Yield	Cost	Yield	Cost
Mangolds	Tons 24.5	£ s. d. 0 15 7	Tons 18.3	£ s. d. 1 1 7	Tons 44	£ s. d. 0 9 11	Tons 29	£ s. d. 0 14 0
Silage: (a) Green	8.3	1 7 11	10	1 16 3	9	1 12 5	9	1 12 10
(b) Fed	4.8	2 8 4	7.3	2 9 8	6.4	2 5 7	6.2	2 7 10

An examination of the acreage costs for the two crops makes it quite clear that the growth of mangolds required a much greater outlay, the average cost of this crop over the three years (£20 4s. 6d.) being nearly 50 per cent. more than the average cost of silage (£14 15s. 7d.). The difference between the cost incurred in seeds, cultivations and manures for the two crops is even more striking, those necessary for mangolds (£12 19s. 10d. per acre) being practically 100 per cent. above those for silage (£6 12s.). These figures confirm the general impression prevailing amongst those who have grown the two crops, namely that mangolds are relatively the more costly. But at the same time they afford a very good example of the danger of drawing general conclusions from incomplete data. Until the total cost has been related to the yield in either case nothing can be asserted as to the economic advantage of one crop over the other, and in the case of the Wye farm the yields of the two crops were as shown in Table III.

Not only is the yield of the mangold crop 300 per cent. more on the average, than that of the silage crop as delivered into the silo, but there is a loss of weight between the date of filling the silo and the use of the crop for stock feeding amounting to no less than 33 per cent. There is no reason to suppose that there were any exceptional circumstances in the case of the Wye farm to account for this; similar results have been obtained in several other parts of the country. Thus the effective weight of the mangold crop is raised to nearly 500 per cent. above that of the silage crop, with the rather remarkable effect upon the cost *per ton* as contrasted with the cost *per acre* which is disclosed in Tables I and II.

It is not suggested that the actual costs on the Wye farm are average costs for the two crops, nor that the wide difference between the ton costs is an average difference. It must be noted that the 80-ton silo at Wye was erected some five years ago, at a cost of £380, complete with cutter and blower, whereas it is stated that a structure to contain 150 tons of green silage can be built to-day for £330 complete. Again, it must not be overlooked that silage has advantages in its higher feeding value, and in the way of convenience in handling without further preparation, for which no credit is given in the figures. There is, too, another factor which may have a very important bearing on the comparative economy of roots and silage, although it would be very difficult to measure it in figures. This is the effect of either crop on the general economy of farm management. The difficulty of getting a tilth in the spring after late-folded roots is not uncommon, and even with the mangold crop after-cultivations and corn sowing are not always done under the best conditions. On the other hand, the early removal of

the silage crop admits of a bastard fallow and early autumn sowing of corn crops under the most favourable conditions, and thus the silage crop, though relatively expensive in itself, may more than justify its place by its beneficial reactions on the cultivation of the following crop. To judge from the experience gained so far, it seems probable that silage as an alternative to root crops is likely to find a permanent place in crop rotations in those districts, principally, where a low average rainfall renders the root crop uncertain.

Such considerations as these tend only to emphasise the need for further investigation of the economics of ensilage suggested by the figures for relative costs contained in the Tables above, in order that its position in farming economy may be more clearly determined. One thing is certain, namely that more attention must be paid to experiment with bulkier silage-making crops. The primary cause of the heavy cost of silage at Wye is its low yield relative to the mangold yield. The need for bulk has been emphasised by American writers, and crops such as maize and sunflowers will give nearly twice as much weight as the popular oat and legume mixtures. It may be that work along this line would go far to establish the economic position of silage as a farm food, quite independently of its value, indicated above, as an aid to efficiency in the general management of the arable land of the farm.

For the information of those who desire to go more closely into the figures summarised in the foregoing Tables, full details of the costs of the two crops grown at Wye during the three years are appended, together with some explanatory notes.

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APPENDIX

DETAILS OF COST OF MANGOLD GROWING—1922, 1923 AND 1924

PER ACRE.

	1922		1923		1924		Three Years' Average	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.
CULTIVATIONS, ETC :—								
Subsoiling	1	2 10	1	1 9 (Part tractor, part horse)	0	9 7	0	3 2
Plough	1	2 10	1	1 9 (Part tractor, part horse)	0	15 10 (Part tractor)	1	0 2
Disc harrow	—	—	0	3 4 (Tractor)	0	3 6 (Tractor)	0	2 3
Broadshare	0	8 9 (Part only)	0	8 6 (Part only)	0	10 0	0	9 1
Cultivate and culpack (tractor)	0	16 4 (Twice)	0	11 5	—	—	0	9 3
Harrow	0	1 6	0	5 6 (3-4 times)	0	2 2	0	3 1
Roll	0	2 9	0	1 7	0	4 8 (Twice)	0	3 0
Seed	0	6 3	0	5 6	0	5 7	0	5 9
Drill	0	3 7	0	2 11	0	3 9	0	3 5
Dung, less residual value	6	2 3	4	7 5	5	0 11	5	3 6
Artificial manures, less residual value	2	0 8	2	9 7	2	17 3	2	9 2
Set out, single, hand-hoe	2	14 7 { Very foul, Day-work	1	13 8 (Piece-work)	1	12 1 (Piece work)	2	0 1
Horse-hoe	0	4 4	0	7 5 (Twice)	0	12 0 (4 times)	0	7 11
		14 3 10		11 18 7		12 17 4		12 19 10
HANDLING THE CROP :—								
Pull	0	19 10	0	18 8	1	8 11	1	2 6
Cart and clamp (includes straw)	2	10 2	4	19 7	4	14 8	4	1 6
		3 10 0		5 18 3		6 3 7		5 4 0
OVERHEAD AND GENERAL EXPENSES :—								
Repairs to drain	—	—	—	—	0	10 11	0	3 8
Rent and rates	1	4 8	1	3 8	1	3 10	1	4 1
Implements, depreciation and repairs	0	4 0	0	15 1	0	19 9	0	12 11
		1 8 8		1 18 9		2 14 6		2 0 8
TOTAL	£	19 2 6	£	19 15 7		21 15 5		20 4 6
Yield per acre		24 5 tons		18 3 tons		44 tons		29 tons
Cost per ton		15s. 7d.		21s. 7d.		9s. 11d.		14s.

DETAILS OF COST OF MAKING SILAGE, 1922, 1923 AND 1924.
PER ACRE.

	1922	1923	1924	Three Years' average
CULTIVATIONS, ETC. —	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Plough	1 3 4	1 0 3	0 17 7 (Tractor)	1 0 5
Harrow	0 2 4 (Twice)	0 4 9 (3 times)	0 4 8 (3 times)	0 3 11
Roll	—	0 1 4	0 2 1	0 1 1
Seed	2 2 0	2 4 0	0 17 3	1 14 5
Drill	0 1 9	0 2 0	0 1 11	0 1 11
Dung (less residual value)	—	3 10 9	—	1 3 7
Artificial manures (less residual value)	2 7 2	1 19 5	2 7 11	2 4 10
Weeding	0 1 9	0 3 9	—	0 1 10
	5 18 4	9 6 3	4 11 5	6 12 0
HANDLING THE CROP —				
Cutting	0 5 0	0 12 0	0 17 2	0 11 5
Carting and filling silo	1 12 8	3 16 0	3 8 8	2 19 1
	1 17 8	4 8 0	4 5 10	3 10 6
OVERHEAD AND GENERAL EXPENSES —				
Rent and rates	1 5 5	1 3 6	1 3 10	1 4 3
Depreciation of implements and repairs	0 4 0	0 14 4	0 19 9	0 12 8
Depreciation of silo, cutter and blower	2 6 7	2 10 8	3 11 3	2 16 2
	3 16 0	4 8 6	5 14 10	4 13 1
TOTAL	11 12 0	18 2 0	14 12 1	14 15 7
Yield per acre (estimated) of green material	8 3 tons	10 tons	9 tons	9 tons
Yield per acre of silage fed	4 8 tons	7 3 tons	6 4 tons	6 2 tons
Cost per ton of silage fed	£2 8s. 4d.	£2 9s. 8d.	£2 5s. 7d.	£2 7d. 10d.

NOTES

A. BOTH CROPS.

- 1.
- No charge*
- has been made for :—

(a) Management.

(b) Interest on Capital. This item is a charge against profits at the end of the year, except in so far as the silo, etc., are concerned (*see* Note on Silage Crops)

(c) General Expenses. (Other than those named.)

- 2.
- Implements.*
- The figures for depreciation and repairs are obtained from the valuation made by a certified valuer, whose system is to deduct 25 per cent. from all new implements and 5 per cent. from the old implements. This seems an unsatisfactory method, as depreciation will be very heavy in a year when several new implements are bought, with the result that the depreciation is not distributed uniformly year by year

Repairs to implements are included and the apportionment, depreciation and repairs, is made as follows: a nominal sum, say 3d per acre, is debited to the pasture land on which only harrow and roll are used, and the remainder is then charged up at the same rate per acre on the meadow (hay) and arable land.

- 3.
- Dung.*
- The cost of spreading is included.

B. MANGOLD CROPS.

Cleaning Costs No allowance was made for the cost of "Cleaning Operations," a proportion of which should strictly be charged to the following crops in the rotation, and which is estimated at £1 6s. per acre; this would reduce the cost per ton to about 13s 1d.1922 *Crop.* One-third of the crop was carted to the farm buildings, the remainder being clamped in the field.1923 *Crop.* All the crop was carted to the farm buildings. The cost of carting was very heavy as the field was a long distance from the buildings, where the mangolds were clamped1924 *Crop.* All the crop was carted to the farm buildings, the cost of carting per acre was heavy owing to the exceptionally large crop.

The cost per acre for subsoiling (9s. 7d) was the proportion chargeable to the mangold crop, the remainder being spread over the other crops in the rotation.

C. SILAGE CROPS.

Depreciation and Interest on Capital. The charges for depreciation and interest on silo, cutter and blower are high; but the life of a wooden silo is a short one and, again, the initial capital outlay was heavy compared to present-day prices.

In comparing the cost of silage and mangolds, the interest on the capital outlay must be taken into account, as the silo, cutter and blower are used for silage only, and are not usually included in the equipment of the farm. It will be noted that no interest is charged to either crop for other capital involved

		£	s.	d.
(a) Depreciation :				
Initial outlay	. . . . .	£380		
Estimated life	. . . . . 20 years			
Annual depreciation	. . . . .		19	0 0
(b) Interest .				
Outlay	. . . . .	£380		
Interest at 5 per cent on £190	. . . . .		9	10 0
Total annual depreciation and interest			£28	10 0

It may be noted that Sir Daniel Hall, in a paper read at the Farmers' Club in 1922, estimated the annual depreciation and cost of repairs to be £22 10s.

With regard to the charge for interest, the capital value decreases as depreciation takes place and £19 must be written off each year. Thus, the charge for interest would be £19 for the first year, and 19s. for the twentieth year, so that the annual amount on which interest is charged is approximately half of £380, namely £190, and the average rate of interest at 5 per cent. £9 10s. per annum.

Cost of Seed. Tare seed was very expensive in 1922 and 1923, which makes the cost of seeding very high compared to that of 1924.

Cost of Cutting, Carting and Filling. In 1922 the field on which silage was grown was situated close to the silo and the crop was a light one, which accounts for the cost being much less than in 1923 and 1924.

Waste in Silo. There is a great difference in the weight of the green material carted into the silo, and the silage actually fed, the average loss for the three years being about 30 per cent. This percentage agrees with Sir John Russell's figures in the early silage experiments at Wye, and also with those on two farms in Essex.

Catch-crop after Silage Crop. If a catch-crop, such as late turnips, rape or mustard, is grown after the silage crop has been carted, the cost of silage would be slightly reduced, as a proportion of the rent and rates would be charged to the catch-crop.

1923 Crop. The high cost per acre compared with 1924 was due to the application of dung in addition to artificial manures. In 1925 dung was again applied as well as artificial manures, and the cost per acre was approximately £18. The crop yielded about 12 tons per acre of green material.

A STUDY OF THE SUGAR-BEET POSITION.

1. THE HISTORY AND DEVELOPMENT OF THE SUGAR-BEET INDUSTRY.

(a) GENERAL.

(b) IN U.S.A.

2. DISCUSSION OF THE PROBABLE EXPANSION IN ENGLAND AND WALES.

3. SOME FACTORS AFFECTING FUTURE DEVELOPMENT.

(a) COSTS AND FACTORY EFFICIENCY.

(b) LABOUR SITUATION.

(c) FOOD SUPPLIES FOR STOCK.

4. SUMMARY AND CONCLUSIONS.

1. THE HISTORY AND DEVELOPMENT OF THE SUGAR-BEET INDUSTRY.

(a) GENERAL.

The history of the sugar-beet crop, when compared with that of cane sugar, covers but a very few years. Whereas sugar was known even in this country at least as far back as the fourteenth century, although it was not until the eighteenth that it began to take its place as a general article of food, the beginning of the

sugar-beet industry dates only from the year 1801, when the first beet-sugar factory was established in Silesia. The development of the industry since then has been irregular, and is mainly bound up with the history of the Napoleonic wars, and of the fiscal policies adopted by the various European countries. Briefly, the protectionist countries have been able to stimulate the production of sugar to an extent which may probably have been beyond the limit of its natural expansion, and, by means of bounties on export paid largely out of funds provided by excise duties, to restrict their home consumption and to supply the markets of other countries with sugar at low prices. Thus, by 1840, six years before England became a free-trade country, the world's beet-sugar trade, although definitely established, was only providing 4·35 per cent. of the world's total trade in sugar, whereas by 1880 it had increased this percentage to 46·13, the average price of sugar having fallen from 48s. a cwt. to 20s. 4d. in the same period. This development may or may not have been the cause of the severe depression which occurred about the same time in the cane industry in the British sugar-producing Colonies, but, at any rate, in 1887 the Foreign Office began to make attempts, abortive at first, to improve the Empire sugar position. These negotiations culminated in the Brussels Convention, ratified in 1903, by which the contracting countries undertook to suppress bounties which might benefit the production or export of sugar. The countries concerned were Germany, Austria-Hungary, Belgium, Spain, France, Great Britain, Italy, the Netherlands and Sweden. Russia joined the Convention in a modified form in 1907. The expectation so far as Great Britain was concerned was that British cane sugar would be able to compete again with foreign beet-sugar on fair terms, whilst the Continental countries hoped to put a stop to the expense of competing against each other by means of bounties. Great Britain remained a party to the Convention up to 1913.

Meanwhile the world's production of beet-sugar which in 1801 had stood at about 6 tons, an infinitesimal proportion of the world's total sugar supply, had attained not much more than a hundred years later an annual output of over 8,000,000 tons, representing 47 per cent. of the whole. The industry by the beginning of the present century had not only expanded at the phenomenal rate thus indicated, but it had become so firmly rooted that, except for the year 1911-12, when yields per acre in most countries were very low, development continued up to the outbreak of the Great War. The output of the more important countries which, on the average, represented 94 per cent. of the world's production of beet-sugar during the years immediately preceding 1914, is shown for that period in the accompanying table:—

TABLE I.
Production of Beet-Sugar in certain Countries.
1909-10 to 1913-14.
(Thousand tons)

	1909-10	1910-11	1911-12	1912-13	1913-14
Germany	2,007	2,551	1,475	2,666	2,675
Austria	924	1,155	708	1,289	1,151
Hungary	354	342	418	582	538
France	769	682	488	920	752
Belgium	244	278	240	292	224
Holland	178	197	237	282	206
Denmark	62	99	114	133	160
Spain .	85	62	92	112	167
Italy .	109	171	156	195	301
Sweden	124	172	125	130	135
Russia	1,171	1,986	1,938	1,381	1,688
Total	6,027	7,695	5,991	7,982	7,997
U S A	520	518	609	703	745
Total .	6,547	8,213	6,600	8,685	8,742

France and Belgium are the only two out of the twelve countries shown whose output in 1913-14 was not greater, and in most cases considerably greater, than in 1909-10, and in these two countries the decline was not considerable. Hence the total production in the European countries shows the significant increase of nearly 33 per cent. over the period. The individual countries have not expanded at a regular rate. Apart from Denmark, which presents the only case of continuous progress throughout these years, the fluctuations, especially in Germany, Austria, Russia and France, were often remarkable, resulting, for instance, in France on one occasion in a rise of 88 per cent. between one year and the next.

It must be remembered, however, that it is the question of sugar production that is here under consideration, and that a review of the acreages of beet sown would show a steady expansion in Hungary and Italy, as well as in Denmark, while the variations of acreage from year to year would be less marked in the case of all countries than were the fluctuations in output of sugar.

The industry as a whole, then, was undoubtedly one in which expansion was in full progress before the war. It is not easy, however, from these figures to gain any clear impression of the

size of the industry as viewed from the agricultural point of view, and for this reason the seven European sugar-producing countries with whom this country is more immediately interested are further examined, particularly as regards acreages, in Table II. It has not been possible to obtain the required information for each country to cover the same year, but it is only in the case of Austria that the year selected is not typical. It so happened that in 1911, the year for which figures for that country are shown, the production was exceptionally low. This, however, was mainly due to a poor yield of beets rather than to a reduced acreage grown, the latter being only 2 per cent. lower than in the previous year, and $5\frac{1}{2}$ per cent. below that of the year following.

TABLE II.

Acreage under Sugar-Beet and Production of Raw Beet-Sugar in seven European Countries.

(In order of importance as producers of Beet-Sugar about the year 1911.)

Country.	Year	Sugar-Beet in Thousand Acres	Per Cent. of Arable Land	Production of Raw Beet- Sugar in Thousand Tons
Germany . . .	1913	1,316	2.1	2,675
Austria . . .	1911	615	2.3	708
France . . .	1910	611	1.0	682
Hungary . . .	1910	291	0.8	342
Belgium . . .	1910	149	4.5	278
Holland . . .	1911	137	6.2	237
Denmark . . .	1912	80	1.3	133

And in order to take stock of the position from the farmer's standpoint, it is the acreage figure that is of more importance than is the quantity of sugar produced. It is seen that in the countries under review the acreage sown to beet before the war varied from 0.8 per cent. of the total arable in the case of Hungary to 6.2 per cent. of the arable land in the case of Holland, the largest acreage being recorded in Germany (1,316,000 acres) and the smallest in Denmark (80,000 acres). The marked variations in the percentages of arable land under beet here shown are to be accounted for to some extent by distribution. In the case of Holland and Belgium the crop is extensively grown in most parts of the country, and the high percentage figures of 6.2 and 4.5 respectively appear; in France, on the other hand, the crop is almost entirely confined to one

district, so that, although taken over the country as a whole, the proportion is only 1 per cent., the proportion in the beet-growing departments amounted in point of fact to 7.3 per cent.

The position since 1914 has been modified by the intervention of the war, but for the meantime it is sufficient to say that the pre-war situation may be taken as the normal, and that there would seem to be little reason why conditions should not tend to revert to that level.

The facts which have been presented will suffice to show that a discussion of the sugar-beet question must necessarily relate to a crop, which, although it occupies a comparatively restricted area, has in a very short space of time established itself as one of the premier sources of the World's sugar.

(b) IN U.S.A.

In addition to this outline of the general development of the industry there are many valuable lessons to be derived from a more detailed study of its expansion in each individual country. Considerations of space prevent such a study covering all countries in the present case, and it has been thought advisable, therefore, to select one country for rather special attention. The U.S.A., rather than any of the European countries, has been chosen for this purpose for various reasons. The beet industry on the Continent is largely bound up with the system of peasant proprietorship, a fact which often makes comparison with this country difficult from the economic point of view, whereas American methods, although conducted under somewhat different climatic conditions, are less intensive, and in many respects are more like those of this country. Then again, the development of the industry in the U.S.A. has taken place in more recent years than in the European countries, for, although attempts had been made in the first half of the nineteenth century to establish the industry on a remunerative basis, it was not until 1879, when a factory erected in California was able to operate at a profit, that the growth of the industry on any appreciable scale began; and its establishment as a commercial success did not actually take place until the last decade of the nineteenth century. Moreover, the sugar industry in the States has been built up, firstly, on a system of bounties and, later, behind a tariff barrier which introduces a further point of similarity with this country, where the industry is progressing under the stimulus of a subsidy. Although the amount of the tariff on imported sugar has varied with different administrations legislation has been favourable, on the whole, to the beet-sugar industry and its present magnitude has undoubtedly been reached by the stimulation afforded by these import duties.

Evidence of the remarkable development and the present scale of the sugar-beet industry in the United States is afforded in the following table :—

TABLE III.

Development of the Beet-Sugar Industry in the U.S.A.

Period	Average Beet-Sugar Production (chiefly Refined).	Total ¹ Sugar Production in U.S.A. and Possessions	Total Consumption of Sugar in U.S.A.	Percentage Beet-Sugar Production	
	1,000 Tons per annum.	1,000 Tons per annum.	1,000 Tons per annum.	to Total Production, U.S.A. and Possessions. Per cent.	to Total Consumption, U.S.A. Per cent.
1881-1890 .	1	464	1,310	0.2	—
1891-1900 .	35	728	2,039	4.7	1.7
1901-1910 .	321	1,355	2,912	23.7	11.0
1911-1920 .	695	2,191	3,921	31.7	17.7
1921-1923 .	767	2,369	5,012	32.3	15.3

¹ Continental U.S.A., Porto Rico, Hawaii and the Philippine Islands. Porto Rico 1900-1906 shipments to U.S.A. Philippine Islands exports to 1911 production 1912 and subsequently.

From an average annual production of a little over 1,000 tons in the decade 1881-1890, the amount of beet-sugar produced has increased to 767,000 tons during the three post-war years 1921-1923, and production has increased by leaps and bounds without interruption from decade to decade. The percentage production of beet-sugar as compared with the total production of the United States and its possessions increased rapidly from 0.2 per cent. in the period 1881-1890 to 31.7 per cent. in 1911-20, and in the post-war years 1921-1923 the proportion has increased to 32.3 per cent. It has therefore established itself in the face of cane-sugar produced in Louisiana and other cane-producing areas in the Southern States, and also in competition with cane produced in the insular possessions of the United States, viz., Porto Rico, Hawaii, and the Philippines, from which possessions imports of sugar have been admitted duty free from various dates. Sugar from Hawaii was placed on the free list as from 1876, and that from Porto Rico and the Philippines has been admitted free of duty as from 1901 and 1913 respectively. From 1902 to 1913 sugar from the Philippines paid 75 per cent. of the then existing foreign duties on imported sugar.

Although the proportion of beet-sugar to the total consump-

tion of the United States is not high, the share from this source has also shown a steady increase up to the decade 1911-1920, when it was nearly 18 per cent. of the total sugar consumed. In the three years 1921-1923 the proportion fell to 15.3 per cent., which is partly accounted for by the agricultural dislocation caused by the slump in prices in 1920-1921. Beet-sugar produced fell from 911,150 tons in 1921 to 602,678 tons in 1922, but since then the amount has been increasing, being 786,607 tons in 1923, and 968,750 tons in 1924.

The growing of sugar-beet in the United States is confined to the Northern and Western States. It is embraced roughly in the area of a triangle with the Pacific seaboard for its base, the Canadian frontier as its Northern side and an irregular line from California on the West to the extreme North-Eastern frontier for its Southern side. The distribution of the sugar-beet crop within this belt is characterised by mean summer temperatures of from 67° F. to 72° F.

Soil has been an important factor in determining the extent of development. In the North-Eastern area the crop is grown on medium loams to heavy clays, dark in colour, with calcareous subsoils at depths of 2 to 3 feet, but "it has been found that the best average results . . . are secured on the dark coloured silt and clay loams, and it is probable that these soils carry over 75 per cent. of the crop."¹ The crop is also grown on lighter and sandy soils where yields are found to be more variable though the sugar content is usually higher. This accords with the general experience in this country. In the West a much greater variety of soils is used for sugar-beet, but sandy loams, fine sandy loams and silt loams carry the greatest acreage.

Irrigation is practised in nearly all the important sugar-beet growing areas of the United States. Michigan, in the North, is the only important sugar-beet State which relies entirely on rainfall for the moisture requirements of the crop.

These factors of temperature, suitability of soils and the necessity for a supply of irrigation water, have had the effect of restricting the development to that part of the country previously described, and even within this belt the growth of the crop is highly localised. This is a case of necessity in the production of sugar-beet, because factories cannot be erected until an adequate supply of beets is assured, and outlying areas which might grow it cannot do so in the long run because of the prohibitive transit charges. Sugar-beet is one of the most intensive crops grown by American farmers and this has made it difficult to establish on a really large scale. Beets have failed to establish themselves in the corn (maize) belt of the States, firstly on account of the low labour requirements of corn and secondly

¹ For this and following quotations see list of authorities, p. 89.

because beets require attention at the same time, and the established crop is so suitable for the belt that it is not easily displaced by a competing crop. Nor has the crop made much headway in the great wheat sections of the country, where farmers have found it more profitable to handle a large acreage of wheat with machinery rather than to grow a small acreage of beets which make a heavy demand on manual labour. Some idea of the comparative labour requirements of the crop in the States is obtained from the following remarks of Harris:—

“More than ten times as much hand labour is required to raise an acre of beets as to raise an acre of wheat, over five times as much as to raise an acre of corn and more than twice as much as to raise an acre of potatoes. The horse labour required for beets is over three times that for wheat, oats and barley, and about one and one-half times as much as for potatoes.”

The relationship of beet acreage to the total land under crops and its value to all crops produced is shown below for the principal beet-growing States and for the United States as a whole:—

TABLE IV.

Land in Crops and Acres in Sugar-Beets, U.S.A., 1919, according to Brandes and others.

State.	Land in Crops.	Area in Sugar-Beets (harvested)	Sugar-Beet Acreage as Percentage of	
	1,000 Acres.	1,000 Acres.	Land in Crops Per cent.	Value of all Crops. Per cent
California . . .	6,851	88	1.29	1.47
Colorado . . .	5,417	166	3.06	9.61
Idaho . . .	2,798	37	1.33	2.16
Michigan . . .	10,001	106	1.06	2.92
Nebraska . . .	19,432	54	0.28	1.12
Ohio . . .	13,934	34	0.24	0.63
Utah . . .	1,071	93	8.72	17.31
Wisconsin . . .	10,266	13	0.12	0.33
<hr/>				
Other States . .	69,770	591	0.84	—
	305,662	45	0.01	—
<hr/>				
U.S.A. . . .	375,432	636 ¹	0.17	0.45

¹ According to U.S.D.A. Yearbook statistical tables the acreage harvested in this year was 692,000 acres.

The figures are for the year 1919 and though the area grown is 636,000 acres the crop only forms a very small proportion of the land under crops. The highest percentage of sugar-beet to crop land was in the Mormon State of Utah, where it reached 8.72 per cent. The next highest percentage was in Colorado, where it reached 3.06 per cent. of the land under crop. In the eight principal beet-growing States 591,000 acres, or 92.9 per cent. of the total output of the U.S.A., is grown. This acreage only amounts to 0.84 per cent. of the total crop land. It would appear therefore that even under a system of protection the agricultural aspect of the industry does not reach gigantic proportions, the retarding factors being the competition of the other crops and the labour situation generally, which in a developing country like America is of paramount importance. It will be noticed, however, from the last column in the preceding table that sugar-beets generally give a relatively high return as compared with the acreage grown.

The number of farms reporting sugar-beet in 1919 was 47,211 or 0.7 per cent. of the total number for the U.S.A. The percentage of sugar-beet farms to all farms in the chief beet-growing States is shown in the following table, together with the average acreage grown on each farm :—

TABLE V

Percentage of Farms growing and Area of Beet per Farm in principal Beet Growing Districts : U.S.A

State	Farms growing Beet Percentage of all Farms	Area per Farm reporting
	Per cent.	Acres.
California	1.3	59.3
Colorado	12.7	21.8
Idaho	6.6	13.5
Michigan	7.5	7.2
Nebraska	1.2	35.6
Ohio .	1.4	9.1
Utah .	32.7	11.1
Wisconsin	1.8	3.6
All other States	0.3	12.9
U.S.A	0.7	13.5

The proportion of farms growing sugar-beet to total farms reaches its highest in Utah, where nearly one in every three farms

grew the crop. In Colorado one farm in eight grow beets, and smaller proportions are found in the other States.

It will be seen that the average number of acres handled on the sugar-beet growing farms in some of these States was quite large. In California, an average of 59.3 acres per farm was grown, in Nebraska 35.6, in Colorado 21.8 acres, and of the farms reporting for the whole of the United States the average is 13.5 acres. It should be remembered in considering these figures that American farmers are not growers of turnips, swedes and mangolds. For the whole of the United States in 1919 an acreage of only 88,000 acres of root crops was grown altogether, but potatoes are an important crop in several of the sugar-beet growing States, especially in Michigan and Wisconsin. There, owing to the rapid growth of population due to industrial development, potatoes are tending to displace sugar-beet for the reason that of these two crops it is sugar-beet which can better be located at a distance from consuming centres. The explanation lies in the fact that sugar, being the more valuable commodity, weight for weight, will leave a better margin of profit after being transported considerable distances.

Sugar-beet is evidently a crop favoured by smallholders. As a result of a survey carried out in Utah it was found that beets occupied a larger percentage of the farm land as the size of the farm decreased.

2. DISCUSSION OF THE PROBABLE EXPANSION IN ENGLAND AND WALES.

The foregoing review of the development of the sugar-beet industry, first, in the world as a whole, and second, in the United States in particular, leads naturally to the question of the development in England and Wales.

Some discussion of this matter appears in a monograph by the present writers which was published in January, 1926, where it is shown that, although spasmodic attempts had been made during the nineteenth century to establish the industry in England, the present serious effort to that end dates practically from 1912, when the Cantley factory was opened. That event was marked by an increase of acreage sown to beet of from just over 500 to almost 4,000 acres. The development since that year has been very erratic, especially in the four years 1916 to 1919, when the factory was closed, and the acreage fell away again to anything between 150 and 170 acres. In 1920, however, Cantley was reopened and the following year the factory at Kolham began to operate. The acreage responded, and the subsequent development may be indicated by the following table:—

TABLE VI.

Development of the Sugar-Beet Acreage in England and Wales since 1920.

Year.	Acres of Beet	Remarks.
1920	3,017	Cantley factory reopened.
1921	8,333	Kelham factory opened.
1922	8,409	Kelham factory closed.
1923	16,918	Kelham factory reopened.
1924	22,441	(First year of Government subsidy. (Colwick factory opened.
1925	54,750	Eight factories in operation.

The average yield per acre of washed and topped roots in 1923 and 1924 was 7·23 tons, with an output of 13,300 tons of sugar in 1923 and 23,700 tons in 1924. On the same reckoning the output of sugar in 1925 would be about 51,000 tons. The total consumption of sugar (apart from molasses, and sugar in the form of confectionery, preserves and so on) in the United Kingdom in 1924 was 1,541,123 tons, an increase of 5·8 per cent. over that of the previous year, but assuming the consumption in 1925 to be at the same rate as in 1924, the home-grown sugar last year would have accounted for only 3·3 per cent. of the total home consumption. At the rate of production and consumption indicated it would require no less than 1,639,607 acres to be devoted to the growing of sugar-beet were the whole quantity of sugar normally consumed to be grown within the borders of the United Kingdom, and of this amount it may be reasonably expected that from 1,200,000 to 1,300,000 acres would have to be grown in England and Wales. The latter acreage represents, on the average, 4·8 per cent. of the total area under all crops and grass in the country, excluding rough grazing, 11·7 per cent. of the arable land, and no less than 54·1 per cent. of the area devoted to root crops and bare fallow last year, while it would be equivalent to 75 per cent. of the total area at present under mangolds, turnips, swedes and potatoes, being three and one-half times as great as the mangold acreage.

Such an expansion is probably beyond the limits of likely development, to gain an indication of which an examination of the acreage statistics of some other beet-growing districts and countries may not be out of place. Table VII is designed to show the extent of development to which the growing of sugar-beet has actually attained in Germany, Holland, Denmark, Belgium and U.S.A. In that the beet crops in France are very largely confined to certain departments, the figures for those

departments are given, as well as the figures for the whole country; and owing to the fact that European conditions have been greatly modified by the war, the pre-war figures have been included as giving a better picture in some cases of the position of the crop.

TABLE VII.

The Relative Importance of Sugar-Beet in various Countries.

Country and Date	The Sugar-Beet Acreage expressed as a Percentage of				
	Total Area	Arable Land	Roots and Fallow	Mangolds, Turnips and Swedes, and Sugar-Beet	Mangolds
Germany, 1913 . . .	1.0	2.1			
Holland, 1911 . . .	1.9	6.2	—	—	—
Denmark, 1912 . . .	0.8	1.3	—	—	—
Belgium, 1913 . . .	2.0	4.4	—	—	—
France, 1913 . . .	0.5	1.1	3.5	21.5	34.4
Main beet-growing district of France, 1913	1.9	7.3	—	61.4	168.0
Germany, 1924 . . .	0.8	1.9	8.2	35.0	53.8
Holland, 1924 . . .	2.5	8.0	25.1	56.5	205.6
Denmark, 1924 . . .	0.9	1.5	7.3	20.2	44.9
Belgium, 1924 . . .	2.7	6.6	25.2	50.0	108.0
France, 1924 . . .	0.3	0.8	2.7	17.4	26.6
U.S.A., 1924 . . .	0.04	0.2	17.9		
Main beet-growing district of France, 1921	2.0	3.2	—	40.6	79.3

Of the various percentages shown it is proposed to use those which relate to the total arable land for purposes of discussion, though there is no reason why some of the other comparisons might not be equally instructive. The largest inroad made by the beet crop into the arable acreage of any of the countries shown is in Holland, where 8.0 per cent. of the ploughland was devoted to it in 1924. The corresponding figure for Belgium was 6.6 per cent., both these countries showing considerable increases over the pre-war figure. This is to be expected, since the falling off of sugar supplies caused by the war provided no small stimulus to increased production on the part of those countries in a position to respond to it. Both these countries were able to take advantage of this fact, as the one had been neutral, and the devastated region in the other was practically confined to Western Flanders. It is significant that in both Holland and Belgium the beet acreage forms a quarter of the area devoted to roots and fallow, and half, or more than half in

the case of Holland, of that sown to mangolds, turnips, swedes and beet when taken together. In Holland there is more than twice as much land under beet as there is under mangolds, whilst in Belgium the two crops are of about equal importance. In that part of France where beet is most extensively grown the proportion of arable land sown to that crop in 1913 was 7.3 per cent., but owing to extension of the devastated region into this district, the corresponding figure for 1924 was only 3.2 per cent. In this district of France before the war, and in Belgium and Holland since the war, the crop has established itself in a position of far greater importance than in any of the other countries shown, and it is not to be anticipated that England, with large areas admittedly unsuitable for the crop and with a far less intensive system of farming, would be able to expand its beet acreage to a similar extent. It will be interesting, however, to take these figures as showing a maximum possible development in England and Wales.

With a proportion of beet to ploughland in Holland and Belgium in 1924 of 8.0 per cent. and 6.6 per cent. respectively, and in the beet-growing districts of France in 1913 of 7.3 per cent., it may be taken that the corresponding figure for England and Wales might be the average of them, say, 7.3 per cent. This, for the present arable acreage, would represent 779,640 acres of beet, and (assuming a yield per acre of 7.23 tons and an extraction of 13 per cent.) 732,783 tons of sugar. This would amount to rather more than 40 per cent. of the total quantity imported into the United Kingdom in an average pre-war year.

To revert to a less speculative proposition, it may be fairly supposed that from the agricultural point of view, and assuming suitable conditions of prices, this country might well develop the new industry up to the point reached by France as a whole, or even by Germany, before the war. Unfortunately the United States, where the crop is by no means universally distributed over the vast acreage of that country, cannot be usefully considered in this respect. A glance at Table VII shows that the proportion of beet to ploughland in France was 1.1 per cent. and in Germany 2.1 per cent. It is difficult to say to which of these two countries this country is most likely to approximate. In Germany the crop is well distributed, whereas in France it is localised. There is evidence that beet can be very successfully grown in many parts of this country which as yet have hardly been touched for the purpose, a fact which would favour a comparison with Germany, and, moreover, there are large tracts of arable land in the South of France which can be more profitably cultivated with crops which will not grow in the North than with beet, a fact which might unduly depress the percentage of beet sown in that country. On the other hand, there are undoubtedly

large areas of arable land in England and Wales where beet will probably never make much headway, the cold clays, for example, and the blowing sands.

Adopting this method of forecast, however, the probable figure for this country may be assumed to fall somewhere between the German and the French percentage, and this would involve an acreage of beet in England and Wales amounting to anything between 117,480 and 224,280 acres, or an average of 170,880 acres, about 22 per cent. of the previous estimate.

There is yet a third method of comparison, suggested by a calculation previously made by the present writers, and of the three it may be found to be the most reliable. The average of the pre-war percentages in Holland and Belgium, i.e. 5.35 per cent., may be applied to those counties of England whose arable acreage is more than 60 per cent. of their total area, and an arbitrary percentage of, say, 0.5 per cent. applied to the rest of the country.

The arable land in the selected beet-growing counties¹ amounts to 3,942,608 acres, and in the rest of England to 6,739,445 acres. 5.35 per cent. of the former figure added to 0.5 per cent. of the latter gives a total sugar-beet acreage on this basis of 244,626 acres. This acreage is shown in the following table as a percentage of various other acreages in the country, and provides a basis of comparison with the figures in Table VII.

TABLE VIII.

Acreage of Sugar-Beet.

Expressed as Percentage of :—

	Land	Roots and Fallow	Mangolds, Turnips and Swedes, Sugar-Beet	Mangolds
England and Wales assumed Sugar Beet acreage, 244,626 acres ²	2.2	10.1 ³	20.1	68.1

Assuming that beet would be grown mainly instead of roots,³

¹ E.g. Huntingdon, Cambridge, Isle of Ely, Hertfordshire, Essex, Suffolk, Norfolk, Lincolnshire, Soke of Peterborough and the East Riding of Yorkshire.

² Including such replaceable market-garden crops as celery, carrots, onions, etc.

³ The question of crops superseded by beet is more fully discussed in *Sugar Beet*. See notes, p. 89.

it is seen that 10·4 per cent. of the present root and bare fallow acreage would have to be given up in favour of beet, which would then occupy an area representing 20·1 per cent. of the present acreage under mangolds, turnips, swedes and beet when taken together, and a good deal more than half as much land as is at present devoted to mangolds. It would involve the growing of nearly four and a half times the acreage under beet in 1925, and it would enable the United Kingdom to dispense with about 13 per cent. of its present imports of sugar for consumption, though this figure might be increased by means of higher yields and better sugar contents on the part of the farmers, and higher sugar extraction on the part of factories, without increasing the acreage of beet sown.

The foregoing arguments are shown in tabular form below, together with the estimated development assuming that the crop will expand throughout the country to the extent to which it has already developed on twenty-six of the beet-growing farms whose figures are dealt with in the monograph already referred to. On these farms the percentage is 3·86, and this figure has been applied here to the whole of England and Wales, though it is more likely perhaps that it would represent the development in the more favourable districts only.

TABLE IX.

Summary of Estimates of Sugar-Beet Development in England and Wales.

	Sugar-Beet	Per cent of Arable Land Area
	Acres	Per cent
Acres required to supply total sugar consumed	1,250,000	11·7
Acres on basis of maximum development in Holland, Belgium and part of France	779,640	7·3
Acres on basis of Germany and whole of France	170,880	1·6
Acres on basis of Holland and Belgium (pre-war) for part of England and 0·5 per cent. for remainder	244,626	2·2
Acres on basis of expansion already recorded on twenty-six farms	412,327	3·86

Of the five estimates shown the third and the fourth would appear to be the most reasonable, in which case a beet acreage of about 200,000 acres in the future is not improbable. This would involve the payment of a subsidy ranging approximately

from £3½ million on the present basis of 19s. 6d. per cwt. of sugar produced down to £1½ million on the final basis of 6s. 6d. per cwt. There might also be a loss of revenue to the Exchequer through the existing remission of the excise duty, but this would depend on whether the home-produced sugar displaced foreign as opposed to Empire sugar imports, since the latter enjoy the same rates of preference as home-grown sugar.

3. SOME FACTORS AFFECTING FUTURE DEVELOPMENT.

(a) COSTS AND FACTORY EFFICIENCY.

The expansion of the area devoted to the growing of sugar-beet in this country to the extent previously indicated is contingent on many factors. In the long run it depends, apart from any question of subsidies, on whether farmers can grow beets cheaply enough and the companies manufacture sugar efficiently enough to result in a price sufficiently low to enable them to compete on favourable terms in the open market. No one can attempt to forecast, with any reasonable certainty, the world prices of sugar in 1933 when the present subsidy ends, and at the moment a discussion of probabilities in this respect would serve no useful purpose. Less risk of error, however, is involved in an attempt to review the possibilities of reducing farmers' costs, of eliminating excessive transport distances and of increasing factory efficiency.

A review of the first question is bound up with that of yield and efficiency in methods. So far as yield is concerned it is true to say that the average for the country, as a whole, is very low. The washed yield was 6.56 tons per acre in 1922, 6.17 tons in 1923 and 8.04 tons in 1924, with an average of 7.12 tons over the three years. According to an American investigation carried out in 1919 the cost per ton decreased consistently as the yield increased from 9 to 24 tons per acre, and on this ground it can with fair certainty be held that the yields given above for this country are obtained at somewhere about maximum cost to the growers. This can readily be understood when it is remembered that some of the operations on the crops, and some of the standing charges such as rent and rates, and some overhead charges have to be met whether a large or small yield is obtained. It is true, of course, that to get the increased yield more expenses may be involved by way of fertilisers, and by more hand and horse hoeings, though this side can be overdone, but it is equally certain at the moment that there is considerable scope for improvement in yields without much increase in cost. The extremes of cost possible with low and high yields may be demonstrated by the figures of cost on certain farms in 1924.

TABLE X.
Showing costs per ton according to yield.

	Low Yield	Farm Cost per Ton		High Yield	Farm Cost per Ton	
	Tons	s.	d.	Tons	s.	d.
Light Soils						
(1) ¹	3.71	74	3	11.94	32	3
(2) ²	7.05	38	7	14.77	20	8
Medium and Heavy Soils :						
(1) ¹	5.94	68	5	11.33	49	7
(2) ²	4.43	62	10	14.93	26	0½
Fen Soils :						
(2) ²	7.36	37	11	15.25	30	5

¹ Using farmyard manure.

² Not using farmyard manure.

The figures of farm cost per ton are extremely variable as between different groups of soil, and between the individual costs in the low and in the high-yield groups, but the general tendency to considerable reduction in cost from low to high yield is unquestionable.

Therefore, by obtaining better stands, by eliminating partial and total failures, and by better singling and hoeing methods, the effect of which should be to increase yields, the costs per ton should be considerably reduced.

It appears also that once this increased yield is obtained in the ground there is considerable scope for reducing labour costs per ton at harvesting and in the subsequent handling of the crop. A short account of American practices in dealing with the crop at this stage is therefore of interest and will be briefly outlined.

Two kinds of beet-lifting plough are in general use. The first is similar to the plough used in this country having a single point which is pulled along the beet row to loosen the beets from the soil and at the same time to raise them slightly. A lifter having two parallel points moving on each side of the row, which also loosens the beets from the soil and raises them slightly, is more commonly used. This machine is also somewhat like others in use in this country but unlike them in that the operator rides. It is called the "two blade riding beet-lifter."

After ploughing out the beets they are knocked and thrown either into piles or windrows, 12 to 20 rows of beets forming either. From these the beets are topped, and the topped beets thrown into central piles for loading. Sometimes they are put into

windrows with all the crowns in one direction and this is considered to facilitate topping. In this case beets are topped on the ground and then thrown into piles for loading.

Mechanical diggers and toppers have not been much used, but there are two types on the market which appear to have some measure of success. The following general description from Harris will give an idea of these harvesters and what they accomplish :—

“There are two general types of harvesters : one that tops the beets and leaves the root in the ground to be lifted with another implement ; after the tops have been raked into windrows, the ordinary lifter is used. An attachment that is fitted to the lifter has been devised and its use facilitates the lifting process. This attachment also removes most of the dirt that would otherwise attach to the root.

The other type of harvester first lifts the beet and then tops it. This type of machine is fitted with equipment that delivers the roots in piles at one side, or with an extension of the delivery carrier, the roots are elevated directly into a wagon that is driven alongside the harvester. The tops are delivered, separate from the roots, and left in windrows or piles.

This latter type of machine moves under its own power, using a light-weight, high-speed gasoline engine. The first type described is drawn by a team and requires about the same power to propel it as does a mowing-machine that is cutting alfalfa.”

Loading into wagons, however, is usually accomplished either by hand or with beet forks. To obviate the necessity of unloading by hand, ramps are provided at many station points. Loads are drawn up on these ramps and by means of special wagons, the body of which turns on an axis, the beets are dumped out over shoot boards into railway trucks.

Another feature which ought to be applied to this country is the provision of nets. Nets are laid over wagons before loading, the beets are then thrown in, and at the station the whole load is lifted *en masse* in the net into the railway wagon by means of a derrick.

At some receiving stations another device is provided which has the effect of reducing rail carriage. Harris says after weighing the load of beets a farmer “dumps his load into a hopper. From there the beets go into a revolving screen where most of the dirt is shaken off. It drops on a belt and is carried to a dirt hopper under which the farmer drives and gets his dirt back.” In this country where the average tare may range from 11 to 19 lb. per cwt., even after going to considerable labour expense in knocking them on the farm, the advantage of clean beets, especially over long hauls, is obvious.

The provision of these facilities at factories and loading stations would cost money and would have to be paid for by the farmers, but with an established industry and maximum use the cost should not be large and would be considerably less than that involved in present practices.

Up to the present many growers have been handicapped by the long distances over which their beets have had to be sent by rail. Hauls of 80 miles have not been uncommon and the railway companies' charge for carriage was an exceptionally large proportion of the farmer's cost. For this distance rail carriage cost 8*s.* 4*d.* per ton of unwashed roots, or, assuming a tare of 16 per cent., 9*s.* 11*d.* per washed ton. Owing to the undeveloped state of the industry at the moment some of the factories, in order to stimulate the growing of the crop in outlying districts, are accepting deliveries of beets involving in many cases longer hauls than 80 miles. It is hardly conceivable in the long run, without the aid of a subsidy, that they will be able to give concessions of this extent and the growing of beets will have to be confined to a narrower radius from the operating factories. In the future it is unlikely that the average haul will be much more than 15 to 20 miles. On the basis of a 20 miles haul costs per ton of washed roots at present rates would be as under:—

Tare Per cent.								Rail Charge <i>s.</i> <i>d.</i>
20	.	.	.	.	.	.	.	4 10½
13	.	.	.	.	.	.	.	4 8
10	.	.	.	.	.	.	.	4 4
5	.	.	.	.	.	.	.	4 1½

Assuming, therefore, that the tare can be reduced to an average of 10 per cent., a cost of 4*s.* 4*d.* per washed ton may be regarded as a fairly normal cost in the future.

Disregarding the possibility of reduced costs by reason of improved harvesting methods, the position in regard to future farm costs and prices may be viewed in the light of recent costs on some farms where the yields were better than the average for England and Wales as a whole.

At the moment the *gross* costs of growing the crop are being given prominence and little attention is being paid to the credit items, such as manurial residues, the cleaning value of the crop, and the value of the by-products, viz. the crowns and leaves. It would, however, seem reasonable to assume in the absence of subsidies, that the factories cannot pay anything like present prices for their raw material, and the value of these items will have to be carefully ascertained in judging the economics of the crop and the possible prices the factories can be asked to pay. The ascertained gross costs on three types of soil are given below, and from them certain deductions have been made. Transport

costs are based on those given above. Manurial residues as ascertained are deducted, a figure of 2s. per ton of washed roots is allowed for the cleaning value of cultivations, and a sum of 4s. per ton of washed roots as the value of the crowns and leaves is also taken off. To the net figure so obtained a sum of 5s. per washed ton has been added as the farmer's interest on capital and profit :—

TABLE XI.

Estimated cost per ton of washed Beets under varying Conditions of Yield.

	Light Soils	Medium and Heavy Soils	Fen Soils
Yield, tons	9.06	9.11	12.82
Sugar Content, per cent.	17.5	17.5	16.6
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Farm Costs	39 11	40 7	36 2
Transport	4 4	4 4	4 4
Gross Costs	44 3	44 11	40 6
Deduct :			
Manurial Residues	3 10	2 11	2 1
Cleaning Residues	2 0	2 0	2 0
Tops	4 0	4 0	4 0
	9 10	8 11	8 1
Net Cost	34 5	36 0	32 5
Add Farmers' Profit	5 0	5 0	5 0
Cost to Factory	39 5	41 0	37 5

Until more information is available on the value of cleaning cultivations and the tops the cost figure can only be regarded as a rough approximation, and it is variable, of course, within a wide range depending on the conditions under which the crop is grown and the probabilities of increased yields in the future.

Using these estimations, however, it will be seen that, under a condition of high yield (12.82 tons), the cost to the factories is

calculated to be 37s. 5d. per ton of washed roots and under a condition of more normal yields of 9 tons the cost may have to be as high as 41s. per ton.¹

In the event of the payment of a bonus for sugar in excess of 15·5 per cent., the profit to the farmer would be increased to the extent of such bonus. It is hardly likely, however, that a bonus could be paid in addition to the profit shown in the table, and since, as the result of the experience of other countries, it would not be sound business on the part of the factories to omit some form of reward for high quality beets, it is probable that there would have to be some reduction in the estimated profit figure to allow for the bonus being paid. The justifications for the bonus are that with high sugar content more sugar can be obtained from each acre sown to beets and that there is also a reduction in operating costs at the factory. Harris, writing in 1918, states that in the U.S.A., "the price paid by manufacturers for beets constitutes over two-thirds of the total cost of manufacturing beet sugar ; and the cost is relatively less for good beets than for poor ones."

Provided then that manufacturing efficiency is as great with beets of high quality as with beets of medium sugar content it can be demonstrated, using the present bonus scale, that the cost of beets per lb. of sugar extracted is somewhat less with high quality beets and, therefore, that the present bonus does not operate unfavourably to the companies. The figures are shown in Table XII, and are based on the estimated costs given previously in Table XI.

TABLE XII.

Estimated cost per lb. of Sugar with Beets of varying Sugar Content.

	Sugar Content	Loss	Extraction	Price per ton of Beets	Cost per lb. of Sugar
	Per cent.	Per cent.	Per cent.	s. d.	d.
Light Soils {	15·5	3·0	12·5	39 5	1·69
	17·5	3·0	14·5	44 5	1·64
Medium and Heavy Soils {	15·5	3·0	12·5	41 0	1·75
	17·5	3·0	14·5	46 0	1·70
Fen Soils. {	15·5	3·0	12·5	37 5	1·60
	16·6	3·0	13·6	40 2	1·58
	17·5	3·0	14·5	42 5	1·56

¹ It is interesting to note that the average price per ton paid to growers in the U.S.A. for the 1923 crop, averaging 8·92 tons per acre, sugar content 15·34 per cent., was \$10 07 or 41s. 4d. at par of exchange.

Incidentally the figures in the above table illustrate, given the assumptions made, the possible range of the cost of the raw material entering into each lb. of sugar produced.

The question of factory efficiency in the extraction of sugar is important and presents for examination many features which are bound up with the organisation of the business, the machinery employed, the technique of the chemists and the skill of the other employees of the companies. Such matters cannot be discussed until more definite information is available on the manufacturing side of the business. In the matter of extraction, however, such figures as are at hand suggest that the factories, up to 1924, had not been able to limit the loss of sugar to 3·00 per cent. by weight of beets worked.

This loss is smaller than that of the Cantley and Kelham factories in the past. Taking the average extraction obtained by the Cantley factory in 9 years up to 1924 with beets of average sugar content of 16·42 per cent., the recovery of sugar has only been 12·31 per cent., or a loss of 4·11 per cent. At Kelham for 3 years the loss was 4·47 per cent. on beets of 16·53 per cent. sugar content. Only in one year, viz. 1923, was the loss lower than 3 per cent. In that year the Cantley factory extracted 13·18 per cent. from beets of 15·75 per cent. sugar content, a loss of only 2·57 per cent.

The extraction at both these factories has been appreciably increased in the last three working years, as the following figures show :—

TABLE XIII.
Recovery of Sugar at Cantley and Kelham.

	Sugar Content Per cent.	Extraction Per cent.	Loss Per cent
Cantley, 1922	16·64	13·23	3·41
1923	15·75	13·18	2·57
1924	16·74	13·25	3·49
Kelham, 1921	15·90	8·82	7·08
1922	16·24	12·31	3·81
1924	14·74	13·35	3·39

In this connection American figures make interesting comparisons. Figures of sugar content, extraction and loss, for the years 1914–20 and 1921–24 in the whole country and in California, where higher sugar contents are obtained, for 1920–24 are given below :—

TABLE XIV.
Recovery of Sugar in U.S.A.

	Analysis of Beet		Recovery of Sucrose		Loss Percentage
	Percentage of Sucrose	Purity Coefficient Percentage	Percentage of Weight of Beets	Percentage of Total Sucrose in Beets	
U.S.A. Average : 1914-1920 .	16.01	84.07	13.57	84.75	2.44
1921 . . .	15.77	83.09	13.76	87.25	2.01
1922 . . .	15.44	83.76	13.61	88.15	1.83
1923 . . .	15.34	83.43	13.41	87.42	1.93
1924 . . .	16.82	—	14.50	86.21	2.32
California :	—	—	—	—	—
1920 . . .	17.66	81.44	15.97	90.43	1.69
1921 . . .	17.80	81.46	16.48	92.58	1.32
1922 . . .	18.48	82.71	17.28	93.51	1.20
1923 . . .	18.35	82.94	17.33	94.44	1.02
1924 . . .	18.63	—	16.98	91.14	1.65

In the light of these figures it does not seem impossible, if higher sugar contents can be obtained concurrently with high yields of beets per acre, that, by improved extraction, lower costs per lb. of sugar are outside practical sugar making methods. It is certain that to obtain improved yields and larger sugar contents and better extraction will require some years of experience on the part of British farmers, patient study in the breeding and selection of better strains of beet, highly efficient sugar experts who will be able to secure the maximum possible extraction, and up-to-date machinery.

Another essential factor in low operating costs in the factories is the necessity of a high acreage of beet per factory. The overhead charges on a factory which is idle for nine months of the year, and which requires considerable overhaul of machinery every year to keep it working efficiently, is bound to be very large. Factories do not come into existence until a minimum of some 4,000 or 5,000 acres is guaranteed by farmers. This is nothing like sufficient to keep them working at full capacity, but the Companies count on a greater acreage being grown and on better yields being obtained in the future. The average acreage grown for nine factories last year was slightly over 6,000 acres per factory, but while some may have been running at full capacity the majority would have contracted acreages much below their maximum requirements. This is a matter which requires the earnest consider-

ation of every farmer. The industry has to live out of the money it obtains for the sugar sold, and to secure the maximum amount for distribution among the interested parties maximum efficiency is essential, and in the case of the factories this can only be secured by their being able to run at or near maximum capacity. It cannot, however, be expected that factories will always run at this maximum. The price offered by the Companies in any given year will determine the attitude of the farmers as to whether or not the crop can be remuneratively grown, and, therefore, in low price years there will be a contraction of acreage and probably a relative increase in factory working expenses. In 1920 in the United States ninety-seven factories were operating, and each handled on an average 8,989 acres of beet. The price slumped in the next year, and only ninety-two factories were operating, but the acreage per factory was only slightly less at 8,858 acres. The following year a further eleven factories were out of commission temporarily, but even with this reduced number of factories the acreage per factory dropped to 6,543. In 1921 five factories, and in 1922 sixteen factories evidently had to be maintained out of the profits of the remaining operating factories, which is the same thing as saying that there was a corresponding reduction in manufacturing efficiency, viewing the industry as a whole.

Low prices operate quickly against the least efficient growers, or those on unsuitable soils, or those who have poor market facilities, and it would seem, therefore, that care should be taken to erect factories only in districts where the conditions of soil and market are good, and where the crop is likely to be looked on as one of the mainstays of the farm. The arable districts of this country are undoubtedly the most favourable.

(b) LABOUR.

The extent to which it will be possible to extend the sugar-beet area is closely allied to the availability of labour, and the effect which its introduction will have on the labour requirement of any farm or in any given district is not an easy one to determine.

If a development up to 5.35 per cent. of the arable land is taken as applicable to those districts most suitable for the crop, it does not, on the face of things, seem to be an insuperable task to handle the crop on this small proportion of the arable land with the existing labour staffs. The matter, however, is not so simple as this would indicate. An average is built up of variable quantities. Some farms will not grow any beets at all, others will grow an acreage below the average and others again rise much above it. The position of the growers of the larger percentages are those who are likely to feel the effect of introducing an intensive crop, especially if they hold medium sized farms. A farmer

on 800 acres, all arable, with 80 acres of beet (or 10 per cent. of the arable), employing 24 men may, by being able to concentrate his staff, find it comparatively easy to handle the crop, whereas a man on a 100-acre arable farm employing 3 men and growing the same proportion of beet as on the larger farm would probably have to find extra hands at certain seasons.

Exception might at first sight be taken to this statement on the ground that some of the most successful beet-growing districts on the Continent are those where small holdings prevail and a large proportion of the arable is under the crop, and American experience, also, is that the percentage of land under beet rises as the size of the holding falls. The position of the small holder is, however, really analagous up to a point with the case of the 100 acre farmer. The small holder could not himself handle the crop and would have recourse to other labour. But here the similarity ends, for the small holder is secure, in most cases, of sufficient reserve of labour in his wife and family upon whom he can and does call in busy times, whereas the 100 acre farmer has to find casuals on the labour market and this labour may be difficult to secure. The creation of further small holdings would therefore appear to be of advantage in assuring the extension of the beet area and in maintaining the area under the crop.

Where intensive farming prevails in any district it may not be necessary to employ additional labour. In the Lincolnshire and Cambridgeshire fens where crops of an intensive nature, like carrots, potatoes, cauliflowers, celery, and so on, are traditional and where therefore a large labour force is constantly employed, it seems fairly safe to say that sugar-beet would have little, if any, effect on the labour requirement.

On the other hand, in districts such as the high lands of Norfolk or in some thinly populated counties in the South Midlands, such as Oxfordshire, the effect of the introduction of beet would be to intensify the system of farming considerably. In such districts the development of the crop can only be a comparatively gradual one. The creation of a supply of labour can only be made possible by careful organisation and by offering attractive terms to the latent sources of labour in the various districts.

Labour for sugar-beet growing is required mainly at thinning and hoeing time and again at harvesting, and the amount a farmer can grow will be determined by the labour available at these times. Much depends on what crop is cut out in favour of sugar-beet before it can be said that casual labour is necessary, and if other hoed crops are displaced it may still be possible to handle the beets with existing labour staffs either by working overtime, or by paying piecework rates.

Granted, however, that casual labour is required at these times and that the demand for this labour varies with individual circumstances, the only solution seems to be either for the National Farmers' Union or, probably better, for the factories to arrange for the supply of casual hands for handling the beet crop. The fieldmen of the factories make periodical visits to each individual grower and they could make inquiries about the additional labour required on each farm. It should then be possible to organise available labour from the towns and villages. It is this class of labour, however, that farmers consider of little use for work on the farm. For example, the singling of beet is a somewhat skilled task and calls for workers who have had experience. This part of the work cannot be performed by people from towns as is done in the case of fruit-picking, pea-picking and hop-gathering. Something might be done by letting the permanent farm hands do the most important tasks and leaving the work of side-hoeing to unskilled men. At harvesting, after the beets have been ploughed out, the work is very largely mechanical and could easily be performed by unskilled people.

It is unfortunate that this period of intensity of work on the crop coincides with the maximum demands of the factories for labour, also mainly of an unskilled kind, to handle beets at the factories, and it would seem that careful selection of sites for factories is essential. To erect a factory in a rural or semi-rural area has the effect not only of drawing a considerable amount of labour from the land all the year round, but also of taking more just at the very time the farmer requires them to handle the crop which the factories must have. These reasons would seem to indicate that from an economic point of view the best position for a factory may be in or near towns or large villages, or in industrial areas, where a considerable reserve of labour could always be commanded without any interference with the agricultural supply.

(c) FOOD SUPPLIES FOR STOCK.

A further factor which must be reckoned with when the expansion of beet growing is under consideration is the effect it will have on the stock-carrying capacity of the country, and this again is not so simple a matter as would appear at first sight. As far as a single farm, or a number of farms, is concerned it would appear that, although the food value of the residues per acre of sugar-beet as measured by starch equivalent is less than that of an acre of mangolds, this deficiency can be easily made good by the purchase of dried pulp or of equivalent food at a price which would leave a good margin of profit to the farmer, when the money he receives for the sugar he sells off the acre at the

present price is taken into account. It has been estimated that the starch equivalent value of the beet residues, namely, the tops, leaves and dried pulp, is about 1,387 lb. per acre, though this figure may be rather too high on the average, and in any case is variable within wide limits owing to the different methods of using the tops and leaves, and the varying quantities of sugar remaining in the pulp according to the methods of extraction used by the factories. To begin with, the quantity of tops left on the field varies considerably with the shape of the roots and with the fancy of the man who tops them. Some farmers prefer to cut off as little as possible, and to risk the expense of re-topping at the factory or the reduction of sugar content owing to the presence of an excess of that part of the root which is stated to contain least sugar. Others, with sheep to fold, may prefer to cut off a larger crown. Then again there is a great difference in quantity due to whether the tops are left lying thinly scattered over the field to be trodden in by beasts turned in to eat them off, or whether they are left in large piles which can be forked up into carts without much wastage. There is considerable variation, too, according as to whether the leaves are allowed to dry off before feeding, in which case they may become slimy and inedible, or whether they are fed fresh, or ensiled, or carefully dried, in which case the value of the leaves may be added to that of the crown of the root. It can be assumed, however, that the value of the tops and leaves for a good crop lies somewhere between 500 and 800 lb. of starch equivalent per acre. The dried pulp derived from an average acre of beet amounts to about 10 cwt. and the food value of this varies considerably according to the efficiency with which the factory extracts the sugar, but it may be taken to be in the neighbourhood of 580 lb. of starch equivalent. The total value of the food available for stock as a result of growing an acre of sugar-beet for factory purposes may be taken, therefore, at about 1,230 lb. of starch equivalent. It is interesting to note in passing that this is almost the exact equivalent of a 12-ton crop of turnips, though it is only about 60 per cent. of the food value of a 12-ton crop of swedes, and less than half the food value of the average crop of medium-sized mangolds, the deficiency when compared with the latter crop amounting to some 1,400 lb. of starch equivalent per acre. Although any one farmer may be able to purchase an amount of dried pulp that is greater than that derived from the beets sent by him to the factory in order to make up the difference, it is clear that, viewing the country as a whole, there is bound to be a deficiency of about the 1,400 lb. of starch equivalent already mentioned for every acre of beet grown in place of an acre of mangolds, of 786 in the case of an acre of swedes, and there would be no loss in the case of turnips. If, therefore, the development of the sugar-beet crop

up to 200,000 acres were to take place at the expense of the mangold acreage, there would be less food for stock in the country by, say, 280 million lb. of starch equivalent. Now taking 45 lb. of mangolds containing 2·8 lb. of starch equivalent as a daily root ration for a dairy cow for five winter months, the above deficiency represents the year's root ration for some 670,000 dairy cows or their equivalent in other classes of stock. In other words, the equivalent in sheep or other stock of about 33 per cent. of the cows at present in the country would be deprived of their winter root ration. How far such a loss could be made good depends on the method of rationing adopted, but in any case supplies would have to be taken from sources not already fully drawn upon. Greater use, for example, might be made of imported concentrated foods to replace the bulky parts of the ration, as is so strongly recommended by Boutflour, and as far as the cost of buying in the equivalent amount of these foods is concerned, it has already been reckoned that the proceeds from the sale of the beets to the factory should leave a fair margin for this purpose. As far as swedes, for example, are concerned additional evidence may be adduced from Lincolnshire, where it is the custom to reckon eight sheep per acre of roots for the winter, and where it is claimed that beet tops will carry but two. It can be calculated that the pulp derived from the same acre would carry the equivalent of a further two sheep, and it would seem that, assuming the roots displaced in this case were swedes, the total value of an acre of beet residues would be about half that of an acre of sheep-keep. Where mixed sheep-keep is displaced the loss would be somewhat less. Then, again, the comparison so far has been restricted to the acre of beet as against the acre of other roots, but it is contended by many of those who have a knowledge of conditions of agriculture in beet-growing countries that the cultivation of beet results in a general improvement of the land and in enhanced yields of subsequent crops. There is already some evidence in this country of the truth of this contention, and any loss of starch equivalent due to growing beet instead of other roots may, therefore, be partly counterbalanced by the increased output of starch equivalent in other forms throughout the rotation. In fact, it may well be that the loss of food value is not as serious as appears at first sight. Further evidence on this point may be drawn from the Final Report of the Agricultural Tribunal of Investigation. The following table, constructed from information derived from that source, shows the yields per acre of some important crops and the number of live-stock units carried per hundred acres in various beet-growing countries compared with similar figures for Great Britain :—

TABLE XV.

*Beet-growing Countries compared with Great Britain, as regards
(A) Yield of Crops, and (B) Livestock Carried.*

	Average Yield per Acre				Livestock units per 100 acres of crops and grass, ex- cluding rough grazing
	Wheat Cwts.	Barley Cwts.	Oats Cwts.	Potatoes Tons	
France, 1911-13 . .	10.5	11.2	10.6	3.5	(1913) 20.4
Germany, 1911-13 . .	17.7	17.0	15.7	5.5	(1913) 30.8
Belgium, 1911-13 . .	20.7	22.0	18.4	7.8	(1912) 47.0
Holland, 1919 . . .	20.7	21.0	15.0	6.4	(1922) 44.9
Denmark, 1919 . . .	23.8	18.4	13.9	6.0	(1922) 39.4
Great Britain, 1919-22 .	17.2	14.6	13.0	6.2	(1922) 33.1

It is seen that of the six countries Great Britain ranks fifth as regards yield of wheat, barley and oats, third as regards yield of potatoes, and fourth as regards livestock carried. It is interesting also that France, a country whose percentage of arable land sown to beet is less than that of any of the other countries except Great Britain, ranks last in every case. It is not desirable on the strength of these figures to lay too much stress on the value of beet as producing higher crop yields and a greater head of stock, for beet-growing is not the only factor involved. There are many factors contributing to this state of affairs, among which intensity of cultivation and systems of land tenure, especially, play an important part, but at least it may be inferred that the cultivation of beet is far from being incompatible with higher yields of crops and greater stock-carrying capacity than obtain at present in this country.

4. SUMMARY AND CONCLUSIONS.

An attempt has been made in the foregoing remarks to forecast the probable trend of events in relation to the sugar-beet crop in England and Wales, and in some measure to suggest to farmers points which would naturally arise in their minds when considering the introduction of this crop, and to indicate the lines along which a solution to such problems may be found.

It has been shown that sugar-beet is a crop which has quickly established itself in many different countries under a variety of conditions, and that it plays no small part in European agriculture. An outline has been given of its progress in the United States of America, where it has been demonstrated that the crop,

even within the wide range of climates and soils suitable for its growth, tends to become localised, because of the labour situation, and the competition of other crops. On the latter point, however, it should be observed that Harris claims that the crop, once established, has little difficulty in competing with ordinary farm crops, and that sugar-beet regions are usually profitable livestock sections.

Viewing the development which has taken place in several countries, especially in Europe, an attempt has been made to estimate the probable expansion of the crop and the part which it may be expected to play in this country. Problems which will have to be faced as a result of a falling subsidy have been mentioned, and an endeavour has been made to draw lessons from developments in the U.S.A., where the introduction of novel practices is not hampered by the existence of long-established traditions. Attention has been drawn to possible reductions in cost by increased yields and improved factory methods, and an indication has been given of the trend of possible costs, taking into account all the advantages likely to accrue from growing the crop.

Problems of labour supply have been discussed. It is probable that from the agricultural point of view it may be sounder economically to develop the crop gradually on many farms, thus giving the opportunity to build up a steadier and more permanent employment of regular agricultural labour, rather than by rapid expansion on a few farms to create a sudden demand for casual hands. In the meantime there may be a tendency for some farmers to grow more beet than they can manage with permanent labour, and, since it is in the interest of the factories that they should do so, it seems reasonable to suggest that the factories should help to supply any additional casual labour required at busy periods.

Some mention has also been made of the effect which the introduction of the crop may have on the supply of feeding stuffs grown on the land.

Apart from future developments, it is clear that at the present juncture the crop, when properly handled under suitable conditions, should leave a good margin of profit to the grower. In support of this contention it may be stated that the average cash profit, after meeting all charges on the crop, was £4 1s. 4d. per acre on eleven light land farms in 1924, and £2 17s. 7d. per acre on twelve farms on medium and heavy soils, though in some cases the cash profits were considerably higher and in one case amounted to as much as £13 6s. 5d. per acre.

It is suggested that with margins of profit such as these there is every incentive for all farmers, who are in a position to do so, to give the crop a serious trial. As has been stated elsewhere by

the present writers, "the market is assured, the price is fixed beforehand, and the additional equipment required is of a nature to require no serious outlay of capital. The crop adds another product to the output of the farm and creates an entirely new market for the farmers of this country. To this extent depressed conditions can be met by an increase of production without the danger of over supplying the market with the staple products of the farm."

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FARM INSTITUTES AND THEIR WORK.

EDUCATION of any kind is contentious. Even where the object is general mental development of the pupil rather than specific preparation for a particular calling, there are differences of opinion as to the best means of attaining that end. One school of thought, for example, emphasises the value of classical studies; another attaches more importance to modern literature; the aim of a third school is to inculcate the scientific outlook; while in the opinion of a fourth, games are not merely a form of recreation but perhaps the principal educational instrument. It is

not to be surprised at, therefore, that there should be differences of opinion as to the best kind of training for a particular vocation.

Vocational education, except for the so-called learned professions, is of comparatively recent development. It has had to overcome the apathy of those whom it should benefit and to encounter the opposition of educationists, who could not appreciate the function of studies in subjects other than those recognised for the purposes of the ordinary academic degrees. Proposals to institute University courses in such prosaic matters as Coal Gas and Tanning met with ridicule; but with the gradual recognition of the value of scientific knowledge in industry, a demand has grown up for men possessing academic qualifications in technology, and in the modern universities technical students now form a considerable part of the total enrolment.

Agricultural education has encountered no less and perhaps no greater difficulties than other forms of technical training; and it has shared with these in the growing appreciation of the results of scientific research which has been apparent during the past twenty years. There is still, however, wide diversity of opinion as to the kind and length of training most suitable for the embryo farmer. At the one extreme is the city man who imagines that his son, if he secures an agricultural degree or diploma, will forthwith be able to farm profitably, either as tenant or as bailiff, or perhaps be able to engage in teaching farmers how to farm. While he would be the first to point out that his own particular kind of business or profession could not be mastered without some years of actual experience in it, he does not quite realise that the same applies, and with at least equal force, to the business of farming.

At the other extreme may be the self-made farmer, who has succeeded, perhaps achieved unusual success, in spite of his lack of academic training. Such men are usually endowed with exceptional powers of observation and memory, as a result of which they can make great use of their experience. Men of this type often regard institutional training as being remote from the path to practical efficiency; the time a young man would devote to college studies might, they believe, be better spent in gaining experience and at the same time earning money that would prove more useful than "book knowledge" when the time came to stock and equip a farm.

Between the two extremes above illustrated is an ever-growing body of practical farmers who recognise that modern husbandry affords scope for the application of knowledge and understanding which the average individual cannot or does not gain by routine experience and ordinary observation, but which can be imparted by competent teachers in a systematic course of instruction. Farmers who read and make full use of the technical advice now

at their disposal may admittedly become well versed in the principles of manuring, feeding, breeding and other technical matters of immediate interest; but such as have the disposition, not to say the time, for technical studies are just those who most regret not having had the advantage of institutional education in these matters before commencing to farm on their own account.

Agricultural education as now organised provides for the needs of different types of student, and courses are available which are suited to the means and opportunities of pupils in different stations of life. The large farmer works with his head



FIG. 1.—The Hertfordshire Institute of Agriculture, Oaklands

more than with his arm and has greater opportunities of utilising technical knowledge than has the smaller occupier, whose personal labour may form a considerable proportion of his earnings and whose personal skill in manual operations may be essential to the conduct of the farm. The typical agricultural college course, extending over three years, has been developed mainly in accordance with the ideas of large farmers as to what studies may best supplement practical experience in the preparation of the mind for extensive farming. Three years, moreover, is not too long a period over which to spread these studies when the student aims to acquire a good and ready knowledge both of the different branches of field and animal husbandry and of the

many allied subjects, such as chemistry, physics, botany, bacteriology, zoology, geology, economics, accountancy and law. It is most desirable that the farming industry should include, as it already does, men actually engaged in farming who can follow the progress of research in the different aspects of agricultural science and discuss the results with advantage both to their fellows and to the research worker.

On the other hand there are large numbers of farmers' sons whose parents depend largely on their manual assistance and who, therefore, cannot afford either the time or the expense to attend long courses of instruction. For such as are unable to leave home for instruction on more than one day per week, there have been arranged in some counties day courses at local centres, where lectures and demonstrations are given in the outstanding principles of field, animal and farm management, with special reference to the conditions of the district in which the class is held. Separate classes are arranged for women students, in which such subjects as dairy work, poultry keeping and domestic economy take the place of the more strictly agricultural matters taught to men students.

Between the college diploma course extending over three years and the county day class meeting on one or two days per week for some ten to twenty weeks, there is a considerable field for intermediate agricultural education. This is the place and function of the Farm Institute, which forms part of the scheme of County Council activity, as distinct from agricultural colleges, whose governing bodies have a wider representation and whose upkeep is assisted by direct grants from the Ministry of Agriculture.

The typical farm institute comprises a farm of medium size, residential accommodation for between 20 and 50 students, together with lecture rooms, laboratories and the staff necessary for teaching "the scientific principles underlying sound practice." During the winter, from October to March, men students receive courses of instruction in soils, fertilisers, crops, live stock, feeding, veterinary hygiene, implements and machinery, weeds and pests, farm arithmetic, bookkeeping and general agricultural science—chemistry and biology. Ordinarily the course is completed in one session, but students desiring more advanced instruction in one or more subjects can have special arrangements made for their needs. During the summer months women students attend for lectures and practical work in dairying, poultry keeping, horticulture, housewifery, and other subjects of special interest to this class of pupil. Special courses in fruit growing, market gardening, etc., may be held in particular institutions serving counties where these industries are of special importance.

The fees vary at the different institutions, but for sons and daughters of residents within the County owning the Institute, the fee is generally between £1 and £1 10s. per week for board, lodging and tuition. Higher fees are payable by pupils from outside the County. A limited number of scholarships are awarded at farm institutes (*a*) by the County Councils concerned, and (*b*) by the Ministry of Agriculture and Fisheries, under the Scheme for establishing scholarships for the sons and daughters of agricultural and other rural workers

In the farm institute course, most of the student's time is



FIG 2 —The Dairy at Oaklands

taken up with studies in subjects which he cannot fail to recognise as being of direct practical importance. In that sense the institute course is more "practical" than the college course; but inasmuch as the tuition is given during the winter months, when field operations are necessarily limited in kind, systematic practice in manual processes cannot be the main feature of farm institute instruction. Moreover, the right kind of student can spend his time more advantageously in the class room than in performing operations with which he ought to be already quite familiar. This, however, may not apply to workshop practice, grafting, hedge-laying, cheese-making and other special operations, not to mention the usual forms of practical work, such as

live-stock judging, identification of pests, weeds and seeds, which form a regular part of the course.

The farm institutes first founded in this country were those at Basing (Hants., 1889), Ridgmont (Beds.), and Newton Rigg (Cumberland). Hampshire still maintains an institute at Sparsholt, and the Cumberland and Westmorland County Councils continue to co-operate in running the Farm School at Newton Rigg; but Ridgmont, which was originally established by the Duke of Bedford, has been closed for more than ten years. Farm Institutes primarily intended for practical dairy instruction are those at Hutton (Lancs.), Worleston (Cheshire) and Garforth (Yorks.). Cheshire formerly maintained the Holmes Chapel Agricultural College, an institution distinct from the dairy school; but recently agricultural education in this county has been centralised at Reaseheath Hall, where a modern farm institute has been established. In Lancashire the agricultural and the dairy schools are still carried on in different institutions, but during recent years the agricultural courses have been shortened and modified, so that the attention of students may be directed more towards their preparation for the business of farming than towards obtaining diplomas.

The above-mentioned establishments date their origin from the time when the newly formed County Councils were endowed with "The Whiskey Money" and with power to employ the proceeds of a penny rate in the furtherance of technical education. The County Technical Education Committees early gave attention to agricultural instruction; and fortunately different ideas prevailed in formulating their policy. In Northumberland it was decided to establish a County Experimental Farm, and thus originated the famous Cocker Park experiments. Most counties made attempts to provide itinerant instruction and some—Cornwall, Devon, Gloucester, Hereford, Monmouth, Stafford, Somerset, Warwick and Wilts—succeeded along these lines, employing a staff of instructors responsible direct to the County authority. Others as above mentioned set up farm institutes.

The policy of some counties was influenced by the Board of Agriculture, which came into existence about the same time as the County Councils. The Board had certain duties concerning, and small grants available for agricultural education, and decided to encourage and assist the setting up of University agricultural departments and agricultural colleges. Its object was to have a centre of this type within each group of counties: it confined its grants to aiding the work of such centres, and endeavoured to obtain for the colleges financial assistance from the surrounding counties. In some cases the result of the counties making grants to the college was that, while their grants were too small to enable

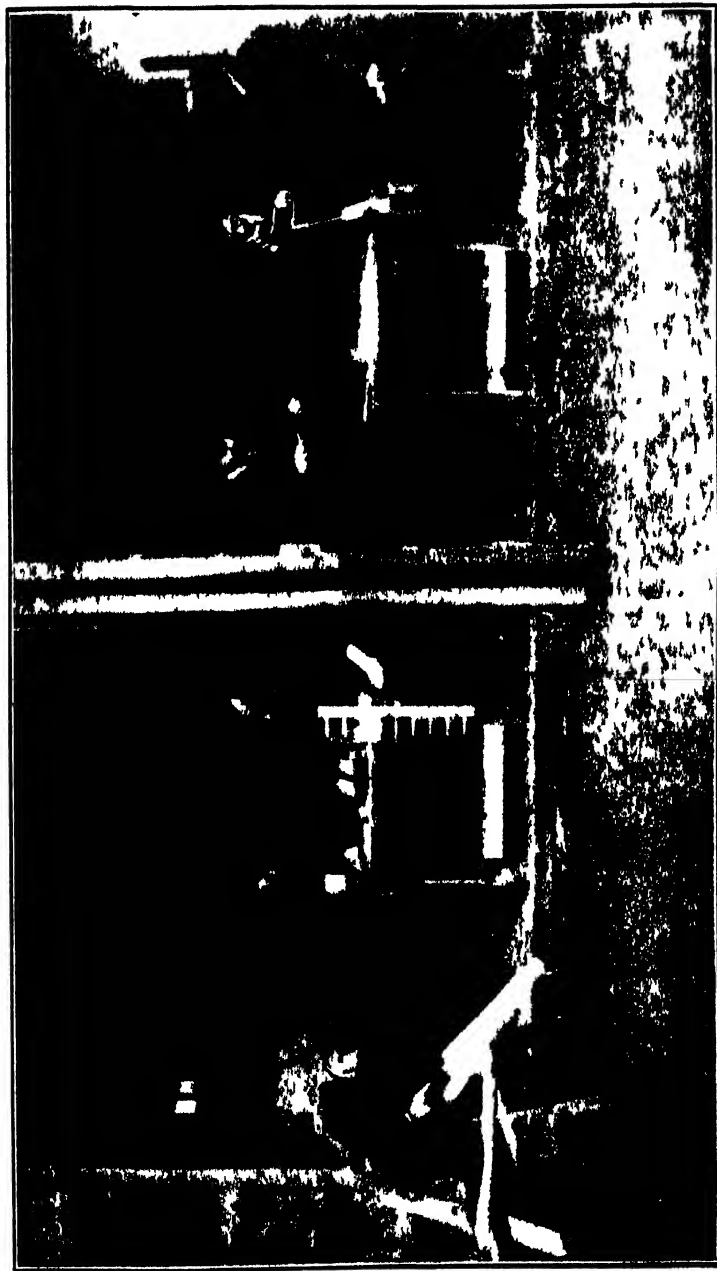


FIG 3 —Carpentry Class at Chadacre Agricultural Institute, Suffolk

the college to carry out much work in the counties, the local schemes were entirely suspended.

Interest in farm institutes was revived on the proposal of Lord Reay's Departmental Committee, which reported in 1908 (Cd. 4206) in favour of setting up such establishments throughout the country in order "to give definiteness of aim and stability to county work." The Institute contemplated by the Committee included a permanent headquarters for the itinerant instructors then employed by many Local Education Authorities, and buildings suitable for winter classes in general agricultural subjects and for instruction in dairying during the summer months. To these institutes the Committee recommended that demonstration farms should be attached.

Lord Reay's Committee's proposal was taken up by the Board of Education, who, in 1911, submitted to the Development Commissioners a scheme for the development of farm institutes. The scheme was approved by the Commissioners, but before it was actually brought into operation the Boards of Agriculture and Education came to an agreement whereby the scheme should be entrusted to the former. Before much progress had been made with the organisation of new farm institutes, the War intervened. In 1918, however, the Government, on the recommendation of Lord Selborne's Reconstruction Sub-Committee, decided to assist agricultural education on a more extended scale, so that the Ministry of Agriculture could make capital grants on the 75 per cent. basis for the establishment of institutes without reference to the Development Commissioners. An immediate extension of local activity in this direction was being organised, but in 1920 the Cabinet prohibition of further expenditure on new schemes arrested the movement. Some relief was, however, obtained under the Corn Production Acts (Repeal) Act, 1921, under which funds were set aside for agricultural education, and from this source assistance has been provided to local authorities who had actually embarked upon farm institute schemes when the prohibition of 1920 was issued.

Counties that have set up farm institutes since 1918 are Cheshire, Hertfordshire, Holland (Lincs.), Northamptonshire, Somerset, Staffordshire, Carnarvonshire, and Denbighshire. Monmouthshire has benefited from local generosity in connection with the Usk Institute, which serves that county; and recently the Chadacre Agricultural Institute was endowed by the Earl of Iveagh for the benefit of students from the county of Suffolk. In Durham and Kent farms have been acquired, but arrangements have not yet been completed for the reception of students. Certain other counties have schemes under consideration or in course of execution.

There are still points on which farm institute policy is not

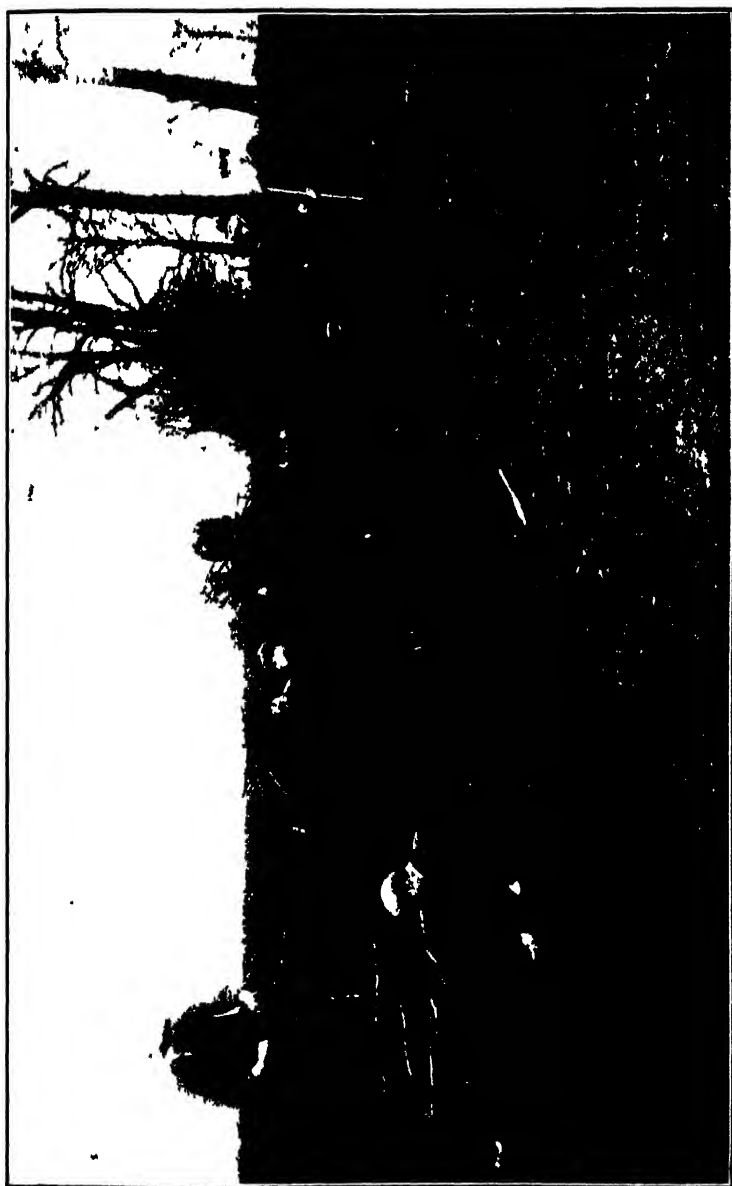


FIG. 4.—Hedging Class at Chadacre.

fully settled. Lord Reay's Committee regarded the farm as the main part of the scheme, urging that the County lecturer could not maintain his practical skill and carry weight with farmers unless he himself was actually running a farm. Experience has shown this to be an incorrect view ; it would be as reasonable to expect a medical practitioner to have personally suffered every complaint on which he may have to give advice. It is obvious that the more the teacher is restricted to the experience he can gain on a particular farm, the less experience he can obtain on the farms in the County. A farm attached to an institute is useful both in assisting the teaching given in the courses and in providing experimental results ; but the person responsible for its management must not be expected to spend a large part of his time in lecturing, visiting and advising other farmers how to manage theirs.

Whether the farm institute should serve as the working headquarters of the county itinerant staff is another debatable point. In some cases that is possible, but for the convenience of farmers seeking advice, an office in the principal market town may be preferable. Indeed, decentralisation may in some counties be a still better plan.

The other questions are those of the age of the pupils to be admitted to farm institute courses and the desirability of including general educational subjects in the curriculum. Recently the Ministry of Agriculture and the Board of Education have extended their agreement so that pupils between the ages of 14 and 16 not in attendance at schools supported by the Board may participate in schemes eligible for grant from the Ministry. This opens up the possibility of making use of farm institutes to fill a gap in our schemes of rural education. Many of the sons of smaller farmers attend only the public elementary school, which they leave at the age of 14 years. At this age they cannot continue their education at a secondary school, as the age for entering upon secondary school courses is 12 or under, and their parents would not agree to the usual condition that they should remain for a period of four years. If the boy goes from the elementary school to work on the farm, then by the time he has reached the age of 16 he will have lost much of the benefit of his previous schooling ; he may have no desire to attend a farm institute, and if he has, his services will have become so useful on the farm that they cannot well be spared. If boys of the age of 14 are to be admitted to special courses at farm institutes, however, the curriculum of these special courses might well include general preparatory subjects and some attention could be paid to general culture as well as to technology.

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SOME CAUSES AND EFFECTS OF CHANGES IN PRICES OF FARM PRODUCE.

PRICES are values expressed in terms of a common monetary unit, and are fixed in the process of exchange of goods. Their function is to facilitate exchange, but their influences do not stop with the mere processes of purchase and sale. In effect, prices act as regulators of the production and consumption of goods. While there is no conscious social control of production or of consumption the prices of commodities, of land, of labour and of capital are the sole regulators of production. The producer adjusts his purchases of the means of production and of raw materials according to the prices which he has to pay for them and according to the prices he expects the finished products to command. Practically all consumers have to choose between possible satisfactions of different wants and desires. For everyone certain elementary wants are of pre-eminent importance, and must be satisfied; but these elementary wants are not identical or of equal importance to all people. Consumers choose to some extent even in the satisfaction of elementary wants, and in their choices they are guided or influenced considerably by prices. But when the most elementary wants are satisfied the prices of goods or services largely determine the satisfaction of other wants by further expenditure. And by the choice between one thing and another, based largely on prices and wholly on prices in relation to wants and the means of satisfying them, the consumers regulate production.

Thus if the forces which fix prices in general were constant the price for a given article would regulate the production of that article according to the effective demand for it. A change in the price of an article would represent a change in consumers' valuation of it. Thus if meat became dearer when prices in general were steady, the increment in price would represent an increase in valuation. The cause might be either an increase in the cost of production or an increase in the consumers' valuation consequent on some other cause. In either case the price would be influencing and indeed regulating production. An increase in cost of production of meat would cause a restriction in the supply unless the price rose in equal ratio to induce producers to continue the provision of the supply required. Or an increase in consumers' valuation of meat would cause an increase in the price which would bring increases in the supply to meet the greater demand.

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If prices merely acted in this way, and upon each commodity separately, they might regulate production so that, with the

means available at any time, it would meet all effective demands and satisfy all wants for which sacrifices would be made. This method of price-fixing by bargaining between producers and consumers in the market may be clumsy and sometimes slow moving, but it differs from any other method only in degree if it differs at all. For if conscious and organized regulation of prices is not to restrict either demand or supply it must take into account all the factors which are operative in the markets and assign to them much the same importance as they there secure for themselves. Organized regulation of prices may be directed to the regulation of demand or of supply, or of both ; but any regulation which does not bring supply and demand into equilibrium is exceedingly difficult to maintain.

Unless any regulation of the price of even one article is carried on with the fullest possible information and with the object of bringing supply and effective demand into equilibrium it may be more clumsy and may have more undesired results than the undirected bargaining between producer and consumer. But, as regards agricultural production, both the undirected bargaining of the market and attempts at organized control of prices may fail to regulate the supply of commodities. This is due to the varying response of nature to the application of given means and energies in production. Not all of the means and forces of agricultural production are subject to monetary valuation or the regulation of application through prices. Rain and frost, wireworm and "fly," with many other similar things are factors in production which are unregulated by prices. And in so far as other industries depend upon raw materials, etc., produced in the primary processes which are covered by the term "agriculture," their costs and prices are likewise affected by the uncertainties of production which are due to the vagaries of nature. But, on the whole, the factors in their costs of production and in the prices of their finished products are more amenable to measurement by monetary standards.

Thus, one cause of changes in prices of farm produce is to be found in the different yield of produce given, in different seasons, for equal amounts of materials and energies applied in production. Good instances of this from English farms are to be found in the yields and prices of hops, of fruit, and of potatoes. During the last fifty years many a "good year" as regards yields of hops has caused losses or even disaster to growers.¹ With fruit and much perishable vegetable produce the yield in prolific seasons may be far in excess of all the demands, and the pressure of excessive supplies on sensitive markets frequently causes prices to slump to a level which does not

¹ *Report on Stabilisation of Agricultural Prices*, Ministry of Agriculture Economic Series No. 2, pp. 40-42.

cover costs of production.¹ In another year a relatively short supply may bring handsome profits. But one of the most important illustrations is to be found in the case of potatoes. From 1915 to 1923 the acreages, yields and values of potatoes in England and Wales have varied as follows:—

POTATOES IN ENGLAND AND WALES.

	Acreage (000)	Yield. Tons per acre	Total Produce (000 tons)	Estimated Value (000 £)
Average Year, 1911-13 . .	445	6.0	2,662	9,117
„ „ 1915 . .	463	6.2	2,858	11,718
„ „ 1916 . .	428	5.9	2,505	23,895
„ „ 1917 . .	508	6.6	3,341	22,051
„ „ 1918 . .	634	6.6	4,209	32,304
„ „ 1919 . .	475	5.7	2,733	29,653
„ „ 1920 . .	545	5.8	3,151	30,722
„ „ 1921 . .	558	5.3	2,958	22,185
„ „ 1922 . .	561	7.1	4,012	13,200
„ „ 1923 . .	467	5.9	2,758	18,846
„ „ 1924 . .	452	6.0	2,696	—

Several changes are indicated in these figures, notably the increase in area under potatoes during the War and the increase in prices of potatoes with that in general prices from 1914 to 1920. But the effect of increase in the yield per acre and in total produce in 1922 is clearly shown in the value for that year. General prices were then falling, but they were not falling to the extent to which that of potatoes fell. But in the following year, with about normal acreage and nearly normal yield, the total value rose over 40 per cent. with much smaller total yield. The effect of a small shortage in 1916 is also remarkable.

The reason for this effect of high production on prices is to be found in the relative “inelasticity” of demand.² It is generally assumed that if the price of a commodity falls the demand will increase, and that as the price rises the demand will diminish. Thus an increasing demand should tend to stop the price falling, or a decreasing demand should tend to stop a price rising. But in none of the cases quoted is the elasticity of the demand so great as that of the production or that of

¹ *Report on Fruit and Vegetables* (Linthgow Committee), Cmd. 1892, 1923, pp. 24-25.

² “The elasticity of demand in a market (or for a commodity) is great or small according as the amount demanded increases much or little for a given fall in price, and diminishes much or little for a given rise in price.”

price. The case of hops is peculiar, so that it need not be treated at length. With potatoes, however, a relatively big decrease in price would be required to induce an increase of 5 or 10 per cent. in normal demand and consumption, and quite a big rise in price is required to cause an appreciable decrease in demand and consumption.

The remedy suggested against these fluctuations in prices which are caused by changes in yields through variations in the seasons is usually that of finding alternative markets for surpluses through alternative uses. This remedy, however, is not frequently available. When alternative uses necessitate the use of plant and equipment (as in the case of use of fruit for jams) that cannot be used economically in the treatment of surpluses only. Moreover, there are many cases in which even the alternative uses of surpluses tend to restrict the original market for the fresh product. The real remedies consist in the discovery of methods of reducing variations in yields, and then in securing the planting of areas sufficient, with average yield, to meet the estimate of normal consumption. Thus only can prices be kept at or near levels which are fair to producer and consumer. Doubtless, the regular producers of hops or potatoes gain the profits necessary to secure the continuance of the supply. But they gain them irregularly, and in the process of guessing at the market and the intentions of other producers a minority of the producers lose money and an enormous amount of labour and materials are wasted. As regards the discovery of methods of reducing variations in yields, it is probable that the natural sciences can render to farmers aid of greater financial value by making yield more certain than by making production cheaper.

For many of the common products of the farm, especially those which meet the primary wants of man, the demand is inelastic. For meat and milk the demand shows considerable elasticity, but for breadstuffs the demand is inelastic. Indeed, for wheat for breadmaking the demand is slightly elastic in a way quite different from the ordinary case of demand. A rise in price beyond the level which is normal for a given period may cause an increase in the demand because dearer bread reduces consumption of other foodstuffs by the poorer classes and thus increases their requirements of bread. But there is no other instance of this kind, nor is there likely to be.

There is also another common case in which prices do not regulate production in agriculture: when there are variations in supplies due to seasonal changes which are normal from year to year. Thus in the case of eggs, the highest point is to be found in November or December in any year. During December prices fall, though they may harden or rise a little in January.

They then continue to fall until April, when the lowest point for the year is reached about the middle of the month. After that a steady rise begins and is continued until August. A sharper rise may begin sometime in August or September and will continue until about the end of November.¹ For eggs in Welsh markets the variations in 1924 and 1925 can be shown.

MAXIMUM VARIATIONS IN THE PRICES OF WELSH EGGS, 1924-25.

	1924		1925	
	Price per dozen	Per cent.	Price per dozen	Per cent.
	<i>s. d.</i>		<i>s. d.</i>	
Highest—January. . .	2 6½	261·28	2 6	230·77
Lowest—April . . .	0 11½	100	1 1	100
Highest—November . .	3 6½	363·83	3 8½	242·3

For April the production of eggs in Wales is estimated at about 633 thousand per day, but in November it would not be more than 152 thousand.

The position is similar though not quite so marked in the case of butter. Prices of butter in Welsh markets, for instance, show more or less regular seasonal movements as follows:—

From the beginning of March prices decline regularly until June, when they invariably touch their lowest point. With a slight increase in July, prices advance considerably in August and September, and the rise is maintained at a regular, if slower, pace to the end of the year. From December the price may continue to rise until the middle of February, but sometimes weakness or a tendency to start a decline is shown in January or February. It will be seen from the figures given below that the range of prices is narrower than in the case of eggs.

MAXIMUM VARIATIONS IN THE PRICES OF WELSH BUTTER, 1924-25.

1924			1925		
Week ending	Actual Price per lb	Per cent.	Week ending	Actual Price per lb.	Per cent.
	<i>s. d.</i>			<i>s. d.</i>	
High . . Feb. 9-16	2 3	152·11	Jan. 10	2 4½	148·7
Lowest . . Jun. 7-14	1 5½	100	June 27	1 7	100
High . . Dec. 31	2 4½	159·15	Nov. 28	2 2½	139·47

¹ J. Morgan Jones. *The Poultry Industry of Wales*, pp. 23-26. Also *Marketing of Eggs*. Economic Series No. 10, pp. 13-14.

The similar position with regard to milk is well known. In all these cases periods of low prices coincide with periods of easy production and heavy supplies. Here production appears to be regulating price, but this is not the case. If any of these commodities were produced only in the period of heavy supplies and low prices the prices required to secure continuance of production would be higher than they are under prevailing circumstances. To secure continuance of supplies, prices throughout the year must be sufficient to cover the necessary costs of the normal producer who is producing throughout the year. Individual producers whose supplies show variations from those which are normal may gain or lose in consequence. Thus the egg producer with relative heavy supplies from August to February will gain if his total cost per egg is not much higher than that of the normal producer. On the other hand, the producer with relatively heavy supplies from March to July must lose unless his total cost per egg throughout the year is much less than that of the normal producer. Similar considerations apply in the case of liquid milk and of butter.

In all of these cases there are two possible methods of steadying prices to some extent and also of bringing total receipts nearer to a remunerative level.

- (a) Changes in methods of primary production tending to steady supplies by increasing them in the periods of relative shortage and decreasing them in those of present surplusage.
- (b) Changes in methods of marketing produce produced in "natural" periods made possible by storage; or
- (c) Alternative use of product during periods of heavy supplies.

In the case of eggs the first two methods can be applied, and offer some prospect of improvement in the total market conditions. Milk and milk products require the application of all three methods for the regulation of the market. The sales of liquid milk are heaviest during the period of large supplies and low prices. But the increase in consumption does not equal the increase in supplies. Therefore supplies of butter, which is manufactured to some extent all the year round, are increased. These are not necessarily marketed, but they have generally been so because methods of preservation reduced quality and the gain in price with the cost of storage did not induce general regulation of supplies. Cold storage may change this position to some extent. But the chief equalizer of the milk and butter markets is the alternative use of milk for cheesemaking. There are farms on which cheese is made during every month of the year, and there are others on which the production of milk is directed mainly towards getting the bulk of supplies during the

months in which cheese is made most easily. Yet the manufacture of cheese is definitely directed to the equalizing of the markets for butter and milk, but especially for liquid milk.

The effect of these seasonal changes in supplies on the markets is not good for the producer. High prices during the periods of short supplies have a very restrictive effect on demand. From the beginning of December each year there is a small increase in production of eggs and this brings with it a fall in price much greater than is proportionate to the increased supply. Consumers restrict purchases when prices are high and only slowly adjust their requirements to new conditions. Less is known in detail about the supplies of butter than of eggs, but there is reason to believe that the same principles apply in regard to supply, demand and price. On the whole, steady prices which bring in a given return on a certain quantity of supplies throughout all the seasons of the year tend to create a bigger demand than violently fluctuating prices for an equal quantity of goods which would yield the same return. Supplies must vary to some extent according to seasonal conditions, but it is to the producer's interest to keep prices as steady as may be possible. The attempt to steady or equalize supplies may raise the unit cost of the commodity throughout the year, but the maintenance of steady supplies tends to create a steady demand at a price which will adequately cover the extra cost.

There are other types of seasonal changes in the price of one commodity, as the well-known seasonal variation in the price of wheat.¹ In this case the causes are complex. Heavy supplies are marketed during the autumn, when prices are apt to be at their low point for the year. But during this period the water content of the wheat is said to be high and the flour yield to be consequently low. There is also another factor. The "soft" or "weak" English wheat is used for blending, and the immediate demands of millers are for only those quantities required in the blends. Some flours for purposes other than breadmaking are made wholly or almost wholly of "weak" wheats. But the main demand for the "weak" wheats is for blending. In this, English wheat has some competitors and the demand for it depends to some extent upon available supplies of other "weak" wheats. In so far as the seasonal variations in prices are caused by changes in the quantities marketed they may be reduced to some extent by the actions of producers, but variations due to seasonal changes in quality or to seasonal changes in demand will always be reflected in prices.

Another case of seasonal marketing is that of barley,² heavy

¹ See *Stabilisation Report*, pp. 43-47; and *Report on Agricultural Credit*, Economic Series No. 8, pp. 17-21.

² See *Report on Agricultural Credit*, Economic Series No. 8, p. 17.

sales occurring in October, November, and December. Then the price is at its highest level for the year because of the quality of the product marketed. Here the sale offers are made to meet the demands of maltsters, and the heavy marketing at the required period probably has a good effect on prices. In another but less important case similar conditions are found. The bulk of the oats sold off Welsh farms return to other farms to be fed to stock, and the bulk of the sales are made in October, November, December, January and February. Many of the heaviest sales are made in the first three months, when the oats are actually required for feeding purposes. When seasonal sales are made to meet active demands, as in these cases, the effect on prices is good rather than otherwise.

There are other special causes of changes in prices of commodities produced on farms, as in the case of the "cyclical" fluctuations in prices and numbers of pigs. A treatise would be required to deal fully with these fluctuations, but the regularity of the changes can easily be seen.¹ The causes suggested are largely those of trade optimism and trade pessimism working in the minds of producers. "High prices stimulate production: production is increased until it exceeds demand and prices fall. The losses or diminished profit thus brought about lead farmers to contract production and prices once more rise. Thus a cycle of rising prices and expanding production followed by falling prices and contracting production is set up, carrying in its train many costly miscalculations and unavoidable losses." The causes assigned are scarcely adequate to the effect, but doubtless the difficulty of estimating the future conditions of the market for pigs has presented a big obstacle to development and has tended to discourage production.

But the most important changes in prices are those which are more or less common to all commodities and have a common cause. These are known as *changes in general prices*, and they have their origin in changes in the supply of money in relation to the amount of goods which it is required to exchange. An increase in the supply of money will cause an increase in prices when the supply of goods to be exchanged remains stable. Or an increase in the supply of goods while the supply of money remains stable will cause a decrease in prices. Thus the increasing supply of silver raised prices in this country in the sixteenth century. The discovery of gold in California and Australia in the middle of the nineteenth century also caused a rise in prices; but shortage in the gold supply after 1874 caused a fall in prices. A slight increase in prices was again caused by increased supplies of gold between 1896 and 1914.²

¹ *Stabilisation Report*, pp. 22-24.

² C. F. Layton. *Introduction to the Study of Prices*, Chs. 6, 7 and 8.

The supply of money, however, is not limited to the supply of coin and bullion, nor is it even to be regarded merely as a quantity. It is rather to be conceived as the flow of the media by which exchange is carried on. The supply of circulating media is made up of :—

- (a) The quantity of money (cash and notes) in circulation.
- (b) The rapidity of circulation of cash and notes.
- (c) The amount of bank deposits against which cheques may be drawn.
- (d) The average frequency with which deposits are drawn upon.

Thus the supply is made up of a moving volume, of which the power is determined by the quantity of things used for making exchanges and the rapidity of their movement.

The total of the exchanges to be made by the supply of currency might be called the "volume of trade" were it not that it includes many transactions not commonly described as trade. They include all sales and purchases of goods and services, all sales and purchases of property and "securities," payments of debts and subscriptions and the making of gifts. But the chief items are the quantity of goods produced, and the number of times they are exchanged between the primary producer and the final consumer ; with the quantity of personal services which are paid for.

The general level of prices is the result of fitting together the supply of currency and the volume of transactions. Without suggesting a rigid analogy, an illustration may be attempted. The volume of trade or transactions is the channel in which the flow of currency runs. If the flow of currency rises while the channel remains of the same dimensions the level rises. If the channel increases in breadth while the flow of currency remains the same the level will fall. But the power of the unit of money falls as the level rises, and rises as the level falls.¹

Several changes in the trend of the general level of prices occurred in the last century. From 1820 to about 1850 the general trend of prices was downwards, a fall of about 25 per cent. in the general level being registered. During this period it is probable that agricultural produce suffered less than some raw materials of industry, although prices of corn fell very heavily in certain years. From 1850 to 1870 the trend of the level of prices was upwards and the general rise was about 25 per cent. on the basis of the years immediately preceding 1850. But potatoes did not share this increase, and wheat did not share to the full extent, showing a rise of only about 6 per cent. On the other hand, mutton and wool, butter and

¹ But a good textbook like *Layton's Introduction to the Study of Prices* or *Irving Fisher's Purchasing Power of Money* should be consulted.

beef showed much more than the average rise. Yet, while prices were falling between 1875 and 1896, wool showed a decline of 50 per cent. when the general decline was 40 per cent., while butter, beef and mutton showed less than the average fall. Wheat again showed a fall greater than the average, and when general prices rose again after 1896 wheat showed a smaller rise than that in the general level. Prices of barley and oats kept fairly near to the general level during the last century, but those of wheat suffered for 50 years before the War. The following comparison is interesting.

CHANGES IN PRICES BETWEEN—

	1846-50 and 1871-75	1871-75 and 1894-98	1894-98 and 1906-10
	Per cent.	Per cent.	Per cent.
<i>General Level of Prices</i>	+ 25	- 40	+ 25
Wheat . . .	+ 6	- 51	+ 17
Barley . . .	+ 25	- 39	+ 4
Oats . . .	+ 24	- 38	+ 11
Mutton . . .	+ 34	- 25	+ 16
Wool . . .	+ 70	- 50	+ 16
Beef . . .	+ 55	- 29	+ 16
Butter . . .	+ 40	- 25	+ 17
Potatoes . . .	+ 1	- 39	+ 4

The distinguishing feature of the general rise in prices from 1896 onwards was that on the whole agricultural produce, especially such as can be produced in Great Britain, took only a very small share in it. Wheat did very well in the period, but it started from a very low level in the years 1894-98, and its parity of value was still very low. On the other hand, potatoes again showed a poor correspondence with the general price movement.

These two commodities show somewhat similar relations to the general price level under totally different circumstances. The bulk of the supply of potatoes was always produced in our own country, but the purchasing power of potatoes was falling from 1850 onwards, probably as a result of improving methods and increasing yields on our own farms. The purchasing power of wheat was also falling, even when wheat-consuming populations were increasing in numbers. This was partly the result of decreasing costs of production in the main exporting area; but also partly because the increasing populations did not have an altogether proportionate effect on demand. With falling prices after 1874 the real wages of manual workers were rising, and the increased purchasing power of their cash wages enabled them to increase their consumption of meat and other

foods with some resulting restriction of the demand for bread in relation to the number of the population. The result is shown in the high purchasing power of beef and mutton from 1850 onwards.

Although the general level of prices was changing from time to time and the price of every commodity was affected by monetary conditions, the price of each was affected in varying degrees, because of the special causes operating on the particular demand or supply. And the price of every commodity in relation to the general price level, i.e., its purchasing power, together with certain influences operating on cost of production, regulated the production in this country. There is now no opportunity of dealing with changes in costs of production of different commodities, but the relation between prices or purchasing power and production are indicated by the well-known decline in acreage and production of wheat and the equally well-known maintenance and even increase of the cattle population.¹

The price movements during the War period are within common experience, but an illustration of the dependence of prices on currency and trade may be useful.

COMPARISON OF PRODUCTION OF CERTAIN GOODS IN CERTAIN COUNTRIES,
1913-1919.

		1910-14 = 100.
Wheat	. . .	99.3
Barley	. . .	104
Oats	. . .	97
Maize	. . .	105
Wool	. . .	92
Sugar	. . .	96
Coal, 1913 = 100	.	79.4
Pig Iron	„ .	75
Steel	„ .	80

During this period the changes in currency and prices in the United Kingdom were as follows :—

	1913 = 100.	August, 1919
Currency of all kinds	. . . . .	244
Wholesale Prices	. . . . .	257
Retail Prices of Food	. . . . .	217 ^a

Thus with a slight deficiency in production and trade as indicated by the figures for production, wholesale prices show an increase slightly greater than that in currency. It is not suggested that no other factors were involved or that the corre-

¹ See "Memorandum on the Decline of British Agriculture between 1874 and 1896" and pp. 21-39, *Stabilisation Report*.

^a See *Statements of Production, Price Movements and Currency Expansion in Certain Countries*. Cmd. 434, 1919.

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spondence in movement will inevitably be so close, and these figures are merely illustrative.

But again individual farm products were affected in different degrees by changes in prices. Making a comparison by the Sauerbeck Index Numbers as before, the following figures indicate the approximate changes, including the War and post-War movements.

	Changes between 1911-13 and 1923-24 Per cent.
<i>General Price Level</i>	+ 66
English Wheat	+ 39
Barley	+ 41
Oats .	+ 37
Beef .	+ 54
Mutton	+ 61
Butter	+ 60
Wool	+ 41
Potatoes	+ 70

Thus comparing the two post-War years with the earlier period all the cereals are losing some purchasing power, and prices of both barley and oats are showing less than their usual correspondence with movements in general prices. On the other hand, prices of the meats were still keeping near their usual correspondence with general movements.

Changes in prices which are common to all commodities, or, in other words, changes in the purchasing power of money, have general effects which are important. A rise in general price level or a fall in the purchasing power of money gives a financial advantage to debtors and puts creditors at a disadvantage. An increase in the purchasing power of money or a fall in the general price-level gives a financial advantage to creditors and puts debtors at a disadvantage. In the one case debtors pay less in values, and in the other they pay more in values than they expected to pay when the purchase or the contract was made. This applies not only to debtors in the ordinary sense, but to all those who are concerned in long-term contracts. Thus a mortgagee suffers from a rise in prices which diminishes the values (of goods and/or services) which will be commanded by the fixed payment in money under the mortgage. While the mortgagor gains relative advantages with the rising price level, he will suffer when the level is falling. Hence the financial difficulties in which many new owner-occupiers with heavily mortgaged farms found themselves after the "slump" of 1921. Similarly in long term contracts for rent, whether the long term is determined by actual contract as by the "long lease" or by custom as in the case of the "lease from year to year," the landowner will suffer from a rise in general prices when rents have been fixed on the basis of the lower price level. The

disadvantage thus suffered may continue for some years either by the terms of the contract or the force of custom. On the other hand, any advantage which may be gained when general prices fall after rents have been fixed on the basis of a higher price level tends, because of the force of custom and farmers' opinion, to be of temporary duration only.¹

But as prices have a regulatory effect on production, a rise in the general price-level tends to stimulate production, while a fall in the price-level tends to restrict production. This is not only because of the "lag" between incurring of costs and the receipt of prices but also because of the effect of rising or falling prices on the minds of producers. A rising price-level tends to create optimism and enterprise, while a falling one tends to create pessimism and caution even if it does not give rise to fear and cause the cessation of constructive activity. Agriculture is as much subject to these influences as any other industry. But general production can increase with rising prices only when labour and raw materials are available, and during the War, for instance, supplies of labour and raw materials for ordinary trade production were limited. And at all times of rising or falling prices the production of each commodity will be subject to the particular influences affecting its demand or its supply. A fairly stable level of prices may be maintainable by control of the issue of currency and credit, at least on an international system,² but the steadiest price level will not

¹ The "economic lag" in farming, and some of the effects of rising and falling prices have been ably illustrated by Mr. C. Dampier Whotham (*This Journal*, "The Economics of Agriculture, etc.," Vol 85, 1924) But the method of estimating the lag by "costing" tends to exaggerate the effect of a change in prices when general prices are falling, because the actual transaction in cash tends to occur later in time than the making of the book entry. It also tends to diminish the actual advantage offered by the "lag" when general prices are rising for the same reason. The length of the "lag" and the relative advantage or disadvantage of a rising or falling price level to farmers on different types of farms is better measured by the relation of annual "turnover" to capital and by profits rather than by the theoretical method of cost accounting. In the extreme case, the Welsh dairy farm, where the theoretical "lag" would be about six months, may have a much shorter actual "lag". The farmer sometimes pays wages only once a year, and at most twice. Rent may be paid half-yearly, but even so will be paid two months after it is theoretically due. Purchases of feeding stuffs may be small, and may be paid for three months or more after purchase and use. Indeed, very considerable receipts may be obtained before any money is expended, except that of the original investment in stock and equipment. Where the "cost" of feeding stuffs or labour is entered weekly or monthly the "lag" is to some extent fictitious unless the book-entry corresponds to an actual cash transaction of the same date.

² For the exposition of methods of stabilising prices, see *Monetary Reconstruction*, by R. G. Hawtrey; and for discussion, *A Tract on Monetary Reform*, by J. M. Keynes.

suffice for the equal maintenance or development of the many branches of the composite group of industries which is described as "agriculture." A stable price-level is desirable, but within a stable price-level any regulation or encouragement of a particular line of production will have to be pursued by methods adapted to the conditions of demand and supply of the individual product.

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SILAGE FEEDING EXPERIMENTS.

THE great interest taken in silage at the present time renders it desirable that more information should be available with regard to its value as a foodstuff for cattle. In order to investigate this subject further, experiments were conducted on farms in East Suffolk during the years 1924 and 1925, a grant being made by the Research Committee of the Royal Agricultural Society to the East Suffolk Education Committee for this purpose.

The experiment was the outcome of a suggestion by Sir Daniel Hall who, in his paper read before the Farmers' Club in London, in March, 1923, pointed out that a number of feeding experiments have shown that cows do specially well on silage, but that further investigation was needed designed on rather different lines. "Silage," said Sir Daniel, "is deficient in carbo-hydrates; we want, therefore, to be told the amount of silage and some cheap carbo-hydrate like barley meal, maize, or molasses, which will constitute the true equivalent to a stone of mangolds in a ration."

Sir Daniel Hall subsequently pointed out that mangolds, in the main, supply carbo-hydrates, whilst silage is a more distinctly protein food. He suggested that a ration should be tried in which the deficiency in carbo-hydrates of the silage was balanced by the addition of a carbo-hydrate food, such as barley, oats or molasses, whilst a reduction might be effected in the cake, because of the proteins available in the silage.

The first experiment was conducted in the early months of 1924 on two farms (Searson's and Blofield Hall) occupied by Messrs. C. C. Smith & Sons. The cows were selected from the herds on these two farms, and were placed at the disposal of the Committee free of charge by Messrs. Smith, who also provided all cattle food necessary.

The food given to the cows and the milk produced were weighed by Mr. Eric Rea.

Mr. E. T. Halnan, of the School of Agriculture, Cambridge, kindly assisted in drawing up the feeding ration, taking into consideration the then recent work upon the composition of silage at Cambridge by Messrs. Amos and Woodman.

	Starch Equivalent	Digestible Protein
SILAGE RATION for 1,200 lb. cow giving 1 gallon of milk daily :		
32 lb. Silage	3 84	80
10 „ Straw Chaff	1 70	07
14 „ Mangolds	98	07
4 „ Crushed Oats	2 80	32
<i>i.e.</i> Carbo-hydrate foods (to balance the deficiency of Silage in Carbo-hydrates)		
	9 32	1 26
ROOT RATION for comparison :		
56 lb. Mangolds	3 92	28
7 „ Clover Hay	2 24	35
10 „ Straw Chaff	1 70	07
1½ „ Earthnut Cake (decorticated)	1 10	615
	8 96	1 315

The earthnut cake was used to balance the deficiency of roots in protein. Clover hay was used, as no meadow hay was available.

The figures taken for the composition of silage were, in Mr. Halnan's opinion, more reliable than the standard analyses given elsewhere. They assume a considerably higher content of digestible protein (2·5 per cent.) for silage than has often been taken. The result of this was that a smaller quantity of silage was assumed to contain the necessary digestible protein than would have been the case had certain other figures been used.

Professor T. B. Wood ¹ gives green fruity silage made from vetches and oats as containing an average of 3·4 per cent. total protein, 2·2 per cent. of crude digestible protein, and 1·1 per cent. of pure digestible protein.

The Report of the Departmental Committee on Rationing of Dairy Cows, published in 1925 by the Ministry of Agriculture, also gives these figures, and in addition a figure called protein equivalent, which is an average of the digestible true protein

¹ *Rations for Live Stock.* Ministry of Agriculture Miscellaneous Publications, No. 32. Fourth Edition.

and the digestible crude protein. This figure is intended to be used as the protein standard in working out rations for cows. In the case of green fruity silage made from vetches and oats, the protein equivalent is given as 1.6 per cent.

None of these figures were available at the time the experiment was started.

An average sample of the silage at both farms was taken and analysed by Mr. A. J. Codling, of the School of Agriculture, Cambridge. The following result was obtained :—

	No. 1 Searson's Farm	No. 2 Blofield Hall
Water	71.00	77.1
Fat	1.26	1.07
Albuminoids, <i>i.e.</i> Total Crude		
Proteins	3.32	3.07
Carbo-hydrates	11.64	7.84
Fibre	10.21	9.31
Ash	2.57	2.11
	100.00	100.00

In this connection it should be noted that Mr. V. C. Fishwick, in an account of feeding trials with silage conducted at the South-Eastern Agricultural College, Wye, Kent,¹ stated that the composition of oat and tare silage was found to vary considerably, not only from year to year, but in samples taken at different heights in the silo. This information was not available at the time the experiment was started.

The silage was of good average quality, but not quite up to the standard of green fruity silage. It was made from an autumn-sown crop, the mixture sown consisting of :—

1 bushel of Winter Oats.
1 " " " Vetches.
1 " " " Beans.

The proportion of beans in the silage was not very large. The crop was put into a wooden stave silo when the oats were in the milky stage, and the vetches had small seeds in the pods. The green material was chaffed at the time of filling the silo, but sometimes it was found that the stems of the oats were not well cut up, and when this was the case the cows were inclined to reject them.

¹ *Journal, Ministry of Agriculture, April, 1924.*

For each additional gallon of milk after the first, 4½ lb. per gallon of a mixture of equal parts of dried grains, bean meal and crushed oats was fed. The total daily weight of concentrated food (or the additional production ration) was kept the same for both lots of cows.

As will be seen from the above, the object of the experiment, stated briefly, was to compare a ration based mainly upon silage with one chiefly based upon roots. In both cases an attempt was made so to adjust the rations as to contain approximately equal quantities of digestible protein and to have an approximately equal starch equivalent.

Preliminary work connected with the experiment commenced at Searson's Farm, Trimley, on January 1, 1924. Twelve cows were selected, and divided into two lots of 6, yielding approximately the same amount of milk daily. The cows varied somewhat in size, but the two lots were about equal in this respect. The selected cows consisted of 8 Friesian and 4 cross-breds, and most of them had had 3 or 4 calves. They were housed in a large modern cow-house, well lighted and ventilated, and they remained in the cow-house at night, but were turned out on to a bare pasture, somewhat exposed to the wind, from 9 a.m. to 11 a.m. They were fed three times daily, *i.e.* at 5.30 a.m., 11 a.m. and 4 p.m. They were watered at 9 a.m. and 3.30 p.m., and milked at 5.30 a.m. and 2 p.m.

It was found that the quantity of chaff in the ration was more than the cows could eat; this was in consequence reduced to 7 lb. daily. The revised rations fed from the commencement to the end of the actual experiment, for maintenance and 1 gallon of milk, taking the high figure for digestible protein in the silage, were:—

	Starch Equivalent	Digestible Protein
SILAGE RATION :		
32 lb. Silage	3.84	.80
7 „ Straw Chaff	1.19	.05
14 „ Mangolds . . . . .	.98	.07
4 „ Crushed Oats	2.80	.32
	8.81	1.24
ROOT RATION :		
56 lb. Mangolds	3.92	.28
7 „ Clover Hay	2.24	.35
7 „ Straw Chaff	1.19	.05
1½ „ Earthnut Cake (decorticated)	1.10	.615
	8.45	1.295

GENERAL OBSERVATIONS MADE DURING THE EXPERIMENTAL PERIOD.

After the preliminary period, the actual experiment commenced on January 13. During the first week the cows fed upon silage "nosed out" the mangolds from their rations first; later they appeared to take the food better and there was no waste. In the third week of the test it was noticed that the cows of both lots cleared up the food eagerly and appeared to desire more, and commenced to eat their bedding. In the fourth week (February 3 to 10) the weather turned suddenly colder and a sharp fall of the milk yield followed.

At the end of the fourth week the rations were changed over, the cows formerly receiving the roots ration being given the silage ration, and *vice versa*. No trouble was experienced owing to the sudden change of food; the weather was cold and the cows hungry. In view of this it was decided to increase the maintenance ration of both lots by 5 lb. of clover hay per cow per day. This was eaten eagerly and appeared to make the animals more satisfied. Owing to the fall of milk yield the ration of concentrated foods for production was reduced with both lots to 36 lb. for the 6 cows for the second month of the experiment.

The weather continued very cold during most of February, but during the last week of the experiment it improved, when the cows of both lots rejected a little chaff, whilst the silage cows also rejected a little silage where it was not very completely chaffed. The most severe spell of weather was between February 7 and March 3, and this had a very adverse effect upon the milk yield. All through the experiment it was noted that cold winds caused a sudden temporary drop in milk, while corresponding recoveries were made on mild days.

CONDITION OF COWS BEFORE AND AFTER EXPERIMENT.

At the end of the experiment none of the cows had appreciably altered in condition, all having maintained their flesh fairly well.

BUTTER FAT TESTS.

The milk was sampled twice during the experiment—once in each period—and tested at the School of Agriculture, Cambridge. The results, giving the average of the evening and morning tests, are given in Table I.

Summary of Results of the Experiment.

ROOTS RATION.

	Milk in lb.
LOT I. January 13 to February 10 (4 weeks)	4,553
LOT II. February 17 to March 16 (4 weeks)	4,157
Total Roots Ration (8 weeks)	8,710

SILAGE RATION.

LOT II. January 13 to February 10 (4 weeks)	4,334
LOT I. February 17 to March 16 (4 weeks)	3,927

Total Silage Ration (8 weeks) 8,261

Advantage in favour of Roots Ration, i.e. 5.1 per cent., 449 lb.

Professor T. B. Wood was consulted as to whether this difference could be regarded as significant, and he has also obtained Mr. Udney Yule's opinion on the question. He writes as follows:—

“I find that the probable error of the weekly averages of the two root periods is 1.27 per cent. and of the two silage periods 1.34 per cent. The probable error of the difference is therefore 1.8 per cent. The difference between the two is 5.1 per cent., which is nearly three times its probable error. This means that the chances are at least 30 to 1 that this difference you record is really significant.

“In working out the probable errors, no account was taken of the fact that a progressive fall in the milk yield was to be expected and actually took place. If this were allowed for the probable error would come considerably smaller, and this would increase the chances that your result is really significant to something like 50 to 1 instead of 30 to 1.

“Mr. Yule and I have discussed the figures together, and we are both of opinion that the difference you record is certainly significant.”

The writer also discussed the results with Mr. James Mackintosh, of the National Institute of Research in Dairying, and he wrote as follows:—

“Two points strike me in connection with these experiments. The first is that you assumed rather too high a percentage of digestible albuminoids in the silage. Had you taken a digestible percentage of 1.5 per cent. or even 2.0 per cent., probably the results would have been less in favour of the roots. The second point is that the root ration contains clover hay, whereas the silage ration does not. This may have contributed to the better results obtained from the root ration.”

CONCLUSIONS.

I. The experiment confirms the results of former tests conducted by the writer and others, in showing the complete suitability of silage for milk production.

II. It will be remembered that the principal object of the experiment was to compare a ration based mainly upon silage with one chiefly based on roots. In both cases an attempt was made so to adjust the rations as to contain approximately equal quantities of digestible protein and to have approximate equal starch equivalent. The results obtained show that roughly 5 per cent. more milk was given by the cows upon the roots ration, and this is regarded by Professor Wood and Mr. Udney Yule as a significant difference. Evidently, therefore, the root ration, as actually fed, must be regarded as slightly superior to the silage ration for milk production.

The composition of silage undoubtedly varies very much, and the original figure taken for digestible protein (2.5 per cent.) seems to have been much too high for the actual silage fed in this experiment. If this surmise is correct, a larger quantity of silage would have been necessary to equalise the rations. This view is confirmed by the figures previously referred to (*see p. 113*).

III. The combination of silage with carbo-hydrate foods—crushed oats and a small quantity of mangolds—proved to be a sound method of feeding. This raises the important question of the extent to which, by using a fairly heavy ration of silage (to reduce the quantity of concentrated foods rich in albuminoids, fed) with a fairly heavy ration of roots (which are frequently the cheapest carbo-hydrate food available), it might be possible to devise a ration which would involve the feeding of very little concentrated foods for the first two gallons of milk. This point seems of great importance in view of the urgent necessity of feeding dairy cows in the cheapest possible way and at the same time giving them an ample supply of the necessary food materials required for the manufacture of milk.

IV. The evident hunger of the cows during periods of cold weather, although they were receiving a ration which is generally accepted as sufficient for maintenance and production, seems to indicate that the maintenance ration should be increased in bad weather.

TABLE I.

Searson's Farm, Trimley.

LOT I.

Name of Cow	ROOTS	SILAGE
	Total Yield for First Period in lb. of Milk	Total Yield for Second Period in lb. of Milk
Searson's Primula . . .	888½	701½
Bessie	905½	806½
Rose	760½	642½
Princess	749½	674½
Spot	605½	596
Ongar Lily	584	506½
Total	4,553½	3,927
Average percentage of butter fat, evening and morning on date of sampling	3.35	3.94

LOT II.

Name of Cow	SILAGE	ROOTS
	Total Yield for First Period in lb. of Milk	Total Yield for Second Period in lb. of Milk
Horney	594	536½
Minerva	861½	855½
Dindy	661½	636½
Ella	503½	454½
Prorrock Primula . . .	1,187½	1,165½
Helner	526½	509
Total	4,334½	4,157½
Average percentage of butter fat, evening and morning on date of sampling	3.66	3.69

The second experiment, conducted at Blofield Hall, Trimley, was a duplicate of that at Searson's Farm. It was commenced on January 28, 1924. All the cows were cross-bred non-pedigree animals of Lincoln Red Shorthorn type. They were very uniform in character. Twelve cows were taken and were divided into

two lots, each lot consisting of 4 cows and 2 heifers. They were not so advanced in their lactation periods as those at Searson's, three having calved within a month previous to the commencement of the experiment.

The farm at Blofield lies in a sheltered hollow a few hundred yards from Searson's Farm, and it was possible for Mr Eric Rea to feed the cows and weigh the milk at both farms, owing to slightly different times of feeding and milking.

Exactly the same rations were fed as at Searson's Farm, with the exception that the silage came from a different silo, until towards the end of the experiment. Additional concentrated foods were fed as at Searson's Farm, *i.e.* 4½ lb of a mixture of equal parts of dried grains, crushed oats and bean meals, per gallon of milk over 1 gallon. Each lot of 6 cows received 60 lb daily of this mixture in the first part of the experiment.

Unfortunately the milk yield of several cows of Lot I (receiving roots) was adversely affected during the first weeks of the trial by illness (chills, and in one case impaction of the rumen) and an accident. On February 24 the foods were changed over, Lot I now being given the silage ration and Lot II being given the roots ration. The change was made suddenly, but the cows took to the food, the weather being very cold.

On February 24 an extra maintenance ration of 5 lb of clover hay was added to each ration, as at Searson's Farm, although the cows at Blofield did not show the same symptoms of underfeeding as at Searson's. At the same time the allowance of extra concentrated foods was reduced by 1 lb per head owing to fall in yield of milk.

On March 7 there was a sudden depreciation in quality of the silage at Blofield. It was sour, and the cows rejected much of it. This was owing to reaching the end of last season's supply and coming on to an older sample placed in the silo in 1922, the bad quality silage being at the junction of the two lots. The following day it was decided to bring silage from Searson's.

The unfortunate series of accidents which affected the cows in Lot I made the results from that lot quite unreliable. No fewer than five of them were affected to such an extent at various periods of the experiment, that portions of their records had to be disregarded. They were affected both when on roots and on silage. Lot II were strangely immune, but owing to the fact that their lactation became more advanced, and also that during the second periods of the experiment they received an additional 5 lb of clover hay for maintenance, but 1 lb less

concentrated food daily, it is difficult to deduce any very definite conclusions from the results, which are given in Table II.

TABLE II.—1924.

Blofield Hall, Trimley.

LOT I. Results unreliable owing to illness of cows.

LOT II.

Name of Cow	SILAGE	ROOTS
	Total Yield for First Period of 4 weeks in lb of Milk	Total Yield for Second Period of 4 weeks in lb of Milk
	Jan 27-Feb 24	Mar 2-Mar. 30
Molly	1,072½	1,105
Hilda	695½	720
Jessie	1,206½	1,250½
Ivy .	493½	486½
Rose	1,220	1,278½
Peggy	816½	830½
Total	5,504½	5,670½
Average percentage of butter fat, evening and morning on date of sampling	3 83	3 78

During the first three months of 1925 a further experiment was conducted with a view to ascertaining whether, by using considerable quantities of both roots and silage, a ration could be drafted which would obviate the necessity of using much concentrated foods for the first 1½ gallons of milk. It was considered that if such a ration were found successful, it would quite appreciably reduce the quantity of concentrated foods necessary, and under normal circumstances would also reduce the cost of milk production.

In this case the experiment was conducted on the farm of Mr. H. G. Smith-Rowse, of Nettlestead Chase, Ipswich, Mr. G. A. M. Reed acting as local supervisor. Mr. Smith-Rowse wished the cows fed upon roots to receive a generous allowance, and to meet his views the following was decided upon as a "Roots" ration :—

"ROOTS" RATION FOR MAINTENANCE AND $1\frac{1}{2}$ GALLONS OF MILK.

	Starch Equivalent	Digestible Protein
80 lb. Mangolds	5.6	.40
10 „ Lucerne Hay	2.5	.70
1 „ Decorticated Cotton Meal .	.73	.41
1 „ Beans . . . . .	.66	.19
1 „ Oats . . . . .	.60	.08
	10.09	1.78

The silage and roots ration for maintenance and $1\frac{1}{2}$ gallons of milk was as follows :—

	Starch Equivalent	Digestible Protein
21 lb. Mangolds	1.47	.10
50 „ Silage	6.00	.74
7 „ Lucerne Hay	1.75	.49
1 „ Decorticated Cotton Meal .	.73	.41
	9.95	1.74

As far as could be arranged, the two rations were practically equal in composition. The silage ration, including as it did some mangolds, provided the necessary carbo-hydrates and also rendered necessary the inclusion of very little concentrated food. A sample of the silage was analysed at the School of Agriculture, Cambridge, with the following results :—

	Per cent.
Moisture	74.00
Oil (ether extract)	2.07
Albuminoids (total crude protein)	4.43
Carbo-hydrates	9.40
Fibre	8.23
Ash	1.87
	100.00

The mixture sown from which the silage was made was :—

1	bushel	Winter Beans.
$1\frac{1}{2}$	„	Tares.
$\frac{1}{2}$	„	Winter Oats.

The total composition of the silage was very similar to that of the average sample given by Mr. James Mackintosh.¹ It

¹ *The Feeding of Dairy Cows.* National Institute for Research in Dairying.

was, therefore, decided to take the digestible composition also from Mr. Mackintosh's tables. A percentage of digestible protein of $1\frac{1}{2}$ per cent., and a starch equivalent of 12 per cent. was, therefore, assumed.

The contrast between the rations was :—

59 lb. Roots (mangolds)	}	versus {	50 lb. silage.
3 lb. Lucerne Hay			($47\frac{1}{2}$) " "
1 lb. Bean Meal			
1 lb. Crushed Oats			

As Lot I only consumed on an average 45 lb. silage per day during the second period, the real contrast is between the roots, hay and concentrated foods given above, and $47\frac{1}{2}$ lb. of silage, not 50 lb.

For each additional gallon of milk after the first $1\frac{1}{2}$ gallons, $3\frac{1}{2}$ lb. per gallon of mixture of 2 lb. bean meal and $1\frac{1}{2}$ lb. crushed oats was fed. The total weight of additional concentrated food (i.e. the additional production ration) was the same for both lots of cows.

Preliminary work connected with the experiment commenced on January 9, 1925. Twelve cows were selected and divided into two lots of 6, yielding approximately the same amount of milk daily. The cows in both lots were of an average size. The twelve cows selected consisted of 9 pedigree and 3 non-pedigree Dairy Shorthorns. Seven of the cows had had 4 or 5 calves, the remaining 5 were young cows having had 1 or 2 calves.

After the preliminary period, the actual experiment commenced on January 18. By this time the cows had taken to the rations quite well and cleared up the food nicely, except for a few hard stalks of the Lucerne hay. The weather was quite favourable during the first period of the experiment.

At the end of the fourth week the rations were gradually changed over, the cows formerly receiving silage being given roots, and *vice versa*. Some trouble was experienced in changing the ration from roots to silage. Some of the cows would not take to the silage for several days, and there was a heavy fall in the milk yield of one cow (Duchess) which was not recovered—due probably to stomach trouble. This cow scoured through both periods of the experiment on both roots and silage. The change from silage to roots was taken quite well, and there was no marked fall in the milk yield due to the change of food.

The fall in milk yields was not so heavy as to necessitate adjusting the concentrated food for production at the end of the first period. During the second period some cows of Lot I would not clear up all the silage. Those cows leaving the most silage were those which fell heavily in milk yields. The weather was very severe during the ninth week, March 8 to 15. The

yields, however, were affected but very slightly. The cows seemed quite satisfied, and no extra food was given them.

During the last week of the experiment the weather improved, and some of the cows rejected a little hay and more silage. The silage was a little stronger in smell during the last week, probably owing to the fact that it was coming from near the bottom of the silo.

At the end of the experiment none of the cows had apparently altered in condition, having maintained their flesh well.

The silage was of average quality, the proportion of beans in it being very small. In some parts of the field the tares did not do so well, and there were too many oats in the silage. The crop was put into a steel silo when the oats were in the milky stage and the tares had small seeds in the pods. The green material was chaffed at the time of filling the silo, and the stems of the oats were not well cut up. This may partly account for the cows not eating the silage so well.

The Lucerne hay was somewhat stalky owing to the fact that the weather during early June, 1924, was very wet, and cutting had to be delayed until the weather improved.

The mangolds were Red Intermediates, and were cut up and mixed with the silage in the silage ration, and in the root ration three parts were cut, and the other part fed whole.

During the second period of the experiment, an average of 5.3 lb. of silage was rejected by the cows of Lot I, the quantity varying from 13.3 lb. per day in the case of Duchess, and 11.4 lb. in the case of Red Nell, to none in the case of Bounce. The silage rejected by each cow was weighed daily.

It is worthy of note that the food offered to Red Nell daily, including concentrates, contained about 27 lb. of dry matter. Of this she rejected silage containing about 3 lb. of dry matter, so that the food she actually consumed daily contained about 24 lb. of dry matter.

Results of the Experiment.

ROOTS RATION.

		Milk in lb.
LOT I.	January 18 to February 15 (4 weeks) .	4,814½
LOT II.	February 22 to March 22 (4 weeks) .	4,482½
Total Roots Ration (8 weeks)		<u>9,297½</u>

SILAGE RATION.

LOT II.	January 18 to February 15 (4 weeks) .	4,868½
LOT I.	February 22 to March 22 (4 weeks) .	3,982
Total Silage Ration (8 weeks)		<u>8,850½</u>

Advantage in favour of Roots, i.e. 4.8 per cent., 447 lb.

As previously noted, one cow (Duchess) was inclined to scour throughout the whole experiment. On changing from roots to silage her drop in yield of milk was very heavy—60 lb. in one week. This cow also rejected a considerable quantity of her silage—an average of 13·3 lb. daily. If this cow be eliminated, we get the following results :—

ROOTS RATION.

		Milk in lb.	
LOT I.	January 18 to February 15 (4 weeks)	3,735½	5 cows.
LOT II.	February 22 to March 22 (4 weeks)	4,482½	6 „
Total Roots Ration (8 weeks)		8,218½	

SILAGE AND ROOTS RATION.

LOT II.	January 18 to February 15 (4 weeks)	4,868½	6 cows.
LOT I.	February 22 to March 22 (4 weeks)	3,199½	5 „
Total Silage Ration (8 weeks)		8,068	

Advantage in favour of Roots, *i.e.* 1·8 per cent., 150 lb.

If Red Nell, the other cow in Lot I which rejected considerable quantities of silage, be left out, the result is still further affected :—

ROOTS RATION.

		Milk in lb	
LOT I.	January 18 to February 15 (4 weeks)	2,855	4 cows.
LOT II.	February 22 to March 22 (4 weeks)	4,482½	6 „
Total		7,337½	

SILAGE AND ROOTS RATION.

LOT II.	January 18 to February 15 (4 weeks)	4,868½	6 cows.
LOT I.	February 22 to March 22 (4 weeks)	2,471½	4 „
Total		7,340	

It appears reasonable to conclude from this that in the case of the ten cows which liked the silage and ate it well, the roots and the silage-plus-roots rations were practically equal in value for milk production, but that in the case of the two cows which did not eat the silage well, the roots ration was decidedly superior.

TABLE III.

*Nettlestead Chase, 1925.**Yields of Milk of Cows under Experiment.*

LOT I.

Name of Cow	ROOTS	SILAGE AND ROOTS
	Total Yield for First Period of 4 Weeks in lb. of Milk	Total Yield for Second Period of 4 Weeks in lb. of Milk
Duchess	1,078 $\frac{1}{2}$	782 $\frac{1}{2}$
Bounce.	885 $\frac{1}{2}$	777 $\frac{1}{2}$
Red Nell	880 $\frac{1}{2}$	727 $\frac{1}{2}$
N. Jewell	678	599 $\frac{1}{2}$
N. Heather	788 $\frac{1}{2}$	676 $\frac{1}{2}$
N. Elegance	503	417 $\frac{1}{2}$
Total	4,814 $\frac{1}{2}$	3,982

LOT II.

Name of Cow	Total Yield for First Period of 4 Weeks in lb. of Milk	Total Yield for Second Period of 4 Weeks in lb. of Milk
Ivy	1,047 $\frac{1}{2}$	913 $\frac{1}{2}$
Myrtle	1,148 $\frac{1}{2}$	1,048 $\frac{1}{2}$
Princess	819 $\frac{1}{2}$	772 $\frac{1}{2}$
Melody	629 $\frac{1}{2}$	601 $\frac{1}{2}$
N. Flower	497	418 $\frac{1}{2}$
P. Ruby	726	727 $\frac{1}{2}$
Total	4,868 $\frac{1}{2}$	4,482 $\frac{1}{2}$

Cost of the Two Rations.

ROOTS RATION.		Cost—pence.
80 lb. Mangolds at 15s. per ton		6.40
10 lb. Lucerne Hay at £4 per ton.		4.30
1 lb. Decorticated Cotton Seed at £13 10s. per ton		1.44
1 lb. Bean Meal at £12 per ton		1.29
1 lb. Crushed Oats at £11 per ton		1.18
		<hr/>
		14.61

SILAGE AND ROOTS RATION.

	Cost—pence.
21 lb. Mangolds at 15s. per ton	1·68
50 lb. Silage at 25s. per ton	6·70
7 lb. Lucerne Hay at £4 per ton	3·01
1 lb. Decorticated Cotton Seed Meal at £13 10s. per ton	1·44

12·83

The accuracy of these figures depends largely upon the cost of growing mangolds and silage. Where very large crops of mangolds can be grown, the cost per ton will probably be less than 15s. per ton. The cost of growing silage depends amongst other things partly upon the crops obtained, and partly upon the overhead charges, which again depend upon the type of silo, its durability, etc. The price of hay has been taken at an average figure. The price of the concentrated foods has been taken at the prices current in January, 1925. It is evident that at the prices assumed, the roots ration must be regarded as costing about 1½d. per cow per day more than the silage ration.

CONCLUSIONS.

It would appear from the results of this experiment—

- (1) That cows which like and greedily eat silage will give practically as much milk upon a silage roots and hay ration as upon a ration of roots and hay to which a little concentrated food is added to make the two rations theoret' ally equivalent.
- (2) That such a silage and roots ration will be cheaper to the extent of nearly 2d. per cow daily, if the figures assumed for the cost of roots and of silage are correct.
- (3) That certain cows do not eat silage well. It is best to reduce the quantity fed to such cows and to substitute other foods.

GENERAL CONCLUSIONS FROM THE THREE EXPERIMENTS
CONDUCTED DURING TWO SEASONS.

- (1) That silage is quite a suitable food for most milking cows.
- (2) That its deficiency in carbo-hydrates may be made good by feeding it together with either crushed oats or mangolds, or both.
- (3) That the considerable variation which occurs in the quality of silage makes it rather difficult to judge how much of it to feed as an equivalent to other foods. It seems probable that average silage as fed in these experiments should not be assumed to contain much more than 1·5 per cent. to 1·6 per cent. of "protein equivalent."
- (4) That some cows like silage and thrive upon it. Such

cows will give practically as much milk with silage, roots and hay as upon a ration of roots and hay with a little concentrated food to make the two rations theoretically equivalent. Such a silage and roots ration will be somewhat cheaper to feed as the quantity of concentrated food needed is reduced.

(5) On the other hand, other cows do not relish silage, and such cows should have only a small quantity fed to them, other foods being substituted. If silage is fed in quantity to cows which do not eat it well, their yield of milk may very probably fall off considerably.

(6) That during periods of exceptionally cold weather, the generally accepted maintenance ration should be increased if the cows seem hungry.

In conclusion, I wish to express my indebtedness to all those gentlemen whose names are mentioned in this report, especially to Messrs Eric Rea and G. A. M. Reed, without whose assistance I should have been unable to conduct this investigation.

I also wish to acknowledge with gratitude the financial help granted by the Royal Agricultural Society of England, without which these experiments would have been impossible.

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CONTEMPORARY AGRICULTURAL LAW.

I — LEGISLATION.

THE Legislature has added to the law of this land in 1925 what is surely an unprecedented amount of statutes. The volume of Acts of Parliament passed in 1925 exceeds in size any volume of recent years. Much of this new legislation consists of the bulky statutes dealing with the new Law of Property in land, the powers and duties of trustees, the administration of estates of deceased persons and the registration of title and of land charges which do not especially affect agricultural interests. There are also lengthy consolidating Acts bringing together into one statute various previous Acts of Parliament. Of this kind are the Housing Act, 1925, the Town Planning Act, 1925, the Supreme Court of Judicature (Consolidation) Act, 1925, and the Workmen's Compensation Act, 1925. These do not substantially alter the previously existing law.

It is, however, necessary to notice some enactments which more nearly affect agricultural interests. Amongst them are the provisions of the Settled Land Act, 1925 (15 Geo. 5, c. 18),

which enlarges the list of improvements which may be carried out by means of capital money in the hands of trustees of settled land. The list of authorized improvements is contained in the Third Schedule to the Act, which adds to those already allowed (amongst other things) bridges, the provision of small dwellings, residential houses for land or mineral agents, managers, clerks, bailiffs, woodmen, gamekeepers and other persons employed on the settled land, or in connection with the management or development thereof, any offices, workshops and other buildings of a permanent nature required in connection with the management or development of the settled land or any part thereof, the erection of gasworks, electric light or power works, the restoration or reconstruction of buildings damaged or destroyed by dry-rot, structural additions to or alterations in buildings reasonably required whether the buildings are intended to be let or not or are already let, boring for water and other preliminary work in connection therewith. In the case of most of these improvements the trustees of the settlement or the Court *may*, but need not, require the capital expended to be replaced out of income by not more than fifty half-yearly instalments. There are also certain other improvements such as heating, hydraulic or electric power apparatus for buildings, steam rollers, traction engines, motor lorries and movable machinery for farming and other purposes on which capital money may be expended, but provision for repayment by instalments out of income is in these cases necessary.

The Importation of Pedigree Animals Act, 1925 (15 & 16 Geo. 5, c. 30), should be noticed, which empowers the Minister of Agriculture and Fisheries to make orders for allowing, subject to conditions prescribed by any such order, any cattle, sheep, goats or swine brought from any part of His Majesty's dominions which are shown to his satisfaction to be there registered as pedigree stock in a herd or flock book recognized by him, after consultation with the Royal Agricultural Society of England and the Highland and Agricultural Society of Scotland, to be landed in Great Britain without being subject to the provisions of Part I of the Third Schedule to the Diseases of Animals Act, 1894 (which relates to slaughter at the port of landing), but subject to the provisions of Part II of that Schedule (which relate to quarantine). No order is, however, to be made except with respect to animals brought from a part of His Majesty's dominions in which pedigree animals brought from this country are allowed to be landed either unconditionally or subject to conditions (including rates of duty) which in the opinion of the Minister are not unduly restrictive.

The Protection of Birds Act, 1925 (15 & 16 Geo. 5, c. 31), makes it an offence to use as a decoy any live bird which is

tethered or is secured by means of braces or other similar appliances, or which is blind, maimed or injured, or to use bird-lime or any substance of a like nature for the purpose of taking or capturing alive any wild bird.

The Finance Act, 1925 (15 & 16 Geo. 5, c. 36), by Section 6 imposes upon hops imported into this country a customs duty of £4 per cwt., and an equivalent duty on every extract, essence, or other similar preparation made from hops so imported. Section 16 applies rules 6 and 7 of Cases I and II of Schedule D of the Income Tax, 1918 (which provide, in connection with the charge to income tax under that Schedule of the profits or gains of a trade, for the allowance of deductions in respect of the wear and tear of machinery and plant, and in respect of expenses incurred in replacing obsolete machinery or plant), to the profits or gains arising from the occupation of lands, including woodlands, when they are ascertained otherwise than by reference to assessable value (*i.e.* under Schedule B). This provision will enable deductions for wear and tear of machinery and plant, and for replacing obsolete machinery or plant, to be deducted when the occupier of agricultural land or woodlands has elected to be assessed under Schedule D.

The Agricultural Returns Act, 1925 (15 & 16 Geo. 5, c. 39), empowers the Minister of Agriculture and Fisheries to require the occupier of any agricultural land (which includes land used as grazing, meadow, or pasture land or orchard, and any land used wholly or mainly for the purpose of the trade or business of a market-gardener or nurseryman) to make a return in writing of the acreage of the land in cultivation, specifying the acreage of the several crops thereon, and of the live stock on the land, and of the persons employed thereon; but no individual return must be published or disclosed without the authority of the person making it except for the purposes of the preparation and publication of agricultural statistics. Any person refusing or without lawful excuse neglecting to make a return required under the Act, or making a return to his knowledge untrue in any material particular, is liable in the first case to a fine not exceeding £5, and in the second case to a fine not exceeding £10. The section does not apply in any case when the total acreage of the agricultural land occupied by a person does not exceed one acre.

The Allotments Act, 1925 (15 & 16 Geo. 5, c. 61), amends the law relating to allotments under the Small Holdings and Allotments Act, 1908, and the Allotment Act, 1922. By Section 2 it authorises loans by the Public Works Loan Commissioners to approved allotment societies. Section 3 makes it necessary for any local authority preparing a town-planning scheme to consider what provision should be included therein

for the reservation of land for allotments. Section 5 empowers the council of a borough or urban district to acquire land for future allotments if there is a reasonable expectation that the land will eventually be required for allotments. Section 7 amends Sub-section 4 of Section 10 of the Allotments Act, 1922, by enabling a tenant whose tenancy is terminated by the termination of the right of occupation of the council who let the land to him, to claim compensation under the Allotments Act, 1922, notwithstanding that it is otherwise agreed in the contract of tenancy, where the rent payable by the tenant exceeds 3*d.* per pole, unless in the case of a tenancy existing at the passing of the Act the council within three months after the passing of the Act gives notice in writing to the tenant that the rent of the land is as from the last preceding date for payment reduced to a rent of 3*d.* per pole or less. By Section 8, where a local authority has purchased land for allotments, it must not sell, use or dispose of the land for any purpose other than use for allotments without the consent of the Minister of Agriculture and Fisheries after consultation with the Minister of Health. Section 12 makes it necessary for the council of every borough or urban district to establish an allotments committee, notwithstanding that the population of the borough or urban district is less than 10,000, if the total number of allotments provided by the council or urban district exceeds the number of 400.

The Diseases of Animals Act, 1925 (15 & 16 Geo. 5, c. 63), is a short Act providing that where, in accordance with any order made by the Minister of Agriculture and Fisheries under Section 19 of the Diseases of Animals Act, 1894, directing the slaughter of cattle in cases of the existence or suspected existence of tuberculosis, compensation is paid out of the local rates for the slaughter of any cattle by a local authority, the local authority shall be entitled to be repaid by the Minister a sum equal to three-fourths of the amount of compensation so paid.

The Summer Time Act, 1925 (15 & 16 Geo. 5, c. 64), provides for the permanent adoption of summer time beginning at 2 a.m. on the day next following the third Saturday in April, or if that day is Easter Day, the day next following the second Saturday in April, and ending at 2 a.m. on the day next following the first Saturday in October.

The Roads Improvement Act, 1925 (15 & 16 Geo. 5; c. 68), contains a variety of provisions for the improvement of roads which need only be noticed shortly. Section 1 empowers the Minister of Transport and any county council or other highway authority to plant trees and lay out grass margins in highways. Section 4 enables the Minister or any county council or other highway authority, for the prevention of danger from obstruc-

tion to view, to impose restrictions with respect to any land at or near any corner or bend in a highway, and to require the owner or occupier of the land to alter the height or character of any wall (not being a wall forming part of the structure of a permanent edifice), fence or hedge thereon, or to restrain him from permitting any building, wall, fence or hedge to be erected or planted on the land. Section 5 authorises the prescription of a frontage line for building on either side of any part of a highway. Compensation is provided to be payable to any person whose property is proved to be injuriously affected by the exercise of the powers so given.

The Widows', Orphans' and Old Age Contributory Pensions Act, 1925 (15 & 16 Geo. 5, c. 70), under which and the National Health Insurance Act, 1924, contributions in respect of male agricultural labourers are now 1s. 6d. a week, payable as to 9d. by the employer and 9d. by the employee, and in respect of women so employed 1s. 1d. a week, payable as to 7d. by the employer and 6d. by the employee, and under which an insured person attaining 65 after the appointed day will become entitled to an old-age pension of 10s. a week, need not be further noticed here.

The Public Health Act, 1925 (15 & 16 Geo. 5, c. 71), contains many important provisions in respect of local government, most of which do not particularly affect agricultural interests. It should, however, be noted that Section 23 of this Act gives power to the local authority where any tree, hedge or shrub overhangs any street or footpath so as to obstruct or interfere with the light from any public lamp, or to endanger or obstruct the passage of vehicles or foot-passengers, or to obstruct the view of drivers of vehicles, to serve a notice on the owner of the tree, hedge or shrub or the occupier of the premises on which it is growing, to lop or cut the tree, hedge or shrub within fourteen days, and in default of compliance the local authority may themselves carry out the requisition, and recover the cost of so doing as a civil debt.

The Land Settlement (Facilities) Amendment Act, 1925 (15 & 16 Geo. 5, c. 85), substitutes other provisions for those contained in Section 27 of the Land Settlement (Facilities) Act, 1919, for the recoupment of losses incurred by county councils in connection with the acquisition of land under the Small Holdings and Allotments Act, 1908. Shortly the Act provides for the ascertainment of (a) the charges to be met in each half-year by any county council in respect of expenditure properly incurred by them in respect of the acquisition, adaptation, or improvement of or otherwise in relation to their small holdings estate; and (b) the net income in each year which will accrue to the council from their small holdings estate. The deficiency

so ascertained is treated as a loss by the county council, which is to be recouped to the council by the Minister of Agriculture and Fisheries in respect of each half-year.

The Tithe Act, 1925 (15 & 16 Geo. 5, c. 87), provides that sums payable on or after the "appointed day" in respect of a tithe rent charge in lieu of being computed in manner prescribed by the former Tithe Acts, shall be stabilised and computed on the basis of £105 for every £100 of tithe rent charge. Where the dates on which tithe rent charge is payable are dates other than April 1 and October 1, the dates for payment are to be changed to those days. Any tithe rent charge attached to a benefice is to be vested in Queen Anne's Bounty, who will hold it in trust for the incumbent of the benefice. Under Section 4 there will also be payable to Queen Anne's Bounty an additional sum of £4 10s. in respect of every £100 of tithe rent charge to form a sinking fund for the eventual redemption and extinction of the tithe rent charge at the expiration of 85 years. Out of the £109 10s. thus received by Queen Anne's Bounty, £4 10s. will be carried to the sinking fund, £5 will be paid to the Inland Revenue Commissioners to be applied by them towards payment of the rates which are assessed on the owner of any tithe rent charge vested in Queen Anne's Bounty (the remainder of such rates being defrayed out of the Consolidated Fund), and the balance after deducting any land tax or any other charge to which the tithe rent charge may be subject, and sums due on account of the cost of collection but free of all rates, will be paid to the incumbent or other person entitled to the emoluments of the benefice. In the case of tithe rent charge attached to an ecclesiastical corporation, the sum of £16 is substituted for the sum of £5 payable by Queen Anne's Bounty to the Inland Revenue Commissioners to meet the rates on the tithe rent charge, and 81½ years is substituted for 85 years during which the tithe rent charge is to continue payable and the payments into the sinking fund are to be accumulated. The provisions of the Act as above stated relating to the transfer to vesting in Queen Anne's Bounty, but not the other provisions of the Act, apply not only to tithe rent charge, but also to any rent charge under the Extraordinary Tithe Redemption Act, 1886, any corn rent charge or money payment payable under any local or personal Act or award in lieu of tithe, any rent charge payable under the Tithe Act, 1860, in respect of the tithes on any gated or stinted pasture, any sum or rate payable for each head of cattle or stock turned on land subject to common rights or held or enjoyed in common, and any tithes and other payments in lieu of tithes not being tithe rent charge. Tithe rent charge vested in a lay improPRIATOR is stabilised at £105 for every £100, but will not be payable to Queen Anne's

Bounty and will not carry the additional £4 10s. to form a sinking fund. It will also remain subject to the payment of rates as before, but it is provided that on an application for the redemption of any lay tithe rent charge, if the land is agricultural land for the purposes of the Agricultural Rates Act, 1896, the Minister, in ascertaining the compensation for the redemption, shall not, in respect of rates, deduct from the gross annual value a sum in excess of two-thirds of the average amount which became payable by the owner of the tithe rent charge, or any other person on account of any rate to which the Agricultural Rates Act, 1896, applies.

The Rating and Valuation Act, 1925 (15 & 16 Geo. 5, c. 90), can only be dealt with shortly, but is of great importance inasmuch as it fundamentally alters the present system of valuation and assessment of local rates. It is not to come into operation until the "appointed day" to be fixed by the Minister of Health, which is to be April 1, 1927. By Section 1 the council of every county borough and the council of every urban and rural district is to be the rating authority for the borough or district, and the powers hitherto vested in the overseers of the poor of each parish in relation to making, levying and collection of rates are to be exercised by the new rating authority. By Section 2 each rural rating authority in lieu of making a poor rate for each parish will make and levy a general rate for the whole of the district. By Section 16, county boroughs and such other areas as may be constituted by schemes made under the section will be assessment areas, and by Section 17 there will be an assessment committee for every assessment area. In the case of assessment areas other than county boroughs, the assessment committees will consist of persons appointed by rating authorities, boards of guardians and the councils of counties. By Section 18, in every county a county valuation committee must be established for promoting uniformity in the principles and practice of valuation and assisting rating authorities and assessment committees. Section 22 is perhaps the most important section of the Act, as it lays down, by reference to the Second Schedule to the Act, the principles for ascertaining the rateable value of any hereditament. These appear to be not very different to those at present in force. In the case of agricultural land, 5 per cent. is to be deducted from the gross value in the first instance, and also in the case of a hereditament subject to any rate charge or assessment made by any commissioners of sewers or other like authority in respect of any drainage, wall, embankment or other work for the benefit of the hereditament (not being a usual tenant's rate), such further amount as represents the average annual value of that rate charge or assessment, and the gross value as so reduced

is referred to as the net annual value. The rateable value of agricultural land will be the net annual value subject to a further deduction of 75 per cent., and this deduction is also to be made in respect of buildings (other than dwelling-houses) occupied together with agricultural land or being or forming part of a market-garden, and in either case used solely in connection with agricultural operations thereon. This is a concession in favour of agriculture, as hitherto only agricultural land and not agricultural buildings has been allowed to be rated on one-fourth of its full value. The Act contains provisions for enabling objections to be made to draft valuation lists, and for appeals from assessment committees to Quarter Sessions. By Section 33, it authorises the employment of professional valuers, and by Section 40 empowers rating authorities to require returns from owners, occupiers and lessees of property. By Section 62 overseers are abolished, and their powers and duties are to be transferred by Order in Council to rating authorities or such other local authorities as may seem expedient.

II.—DECISIONS OF THE COURTS.

1. *Landlord and Tenant*.—There have been a number of noticeable cases reported under this head during the year 1925. The first case to be noted is *Rex v. Powell, ex parte Marquis Camden* (94 L.J.K.B., 433; [1925] 1 K.B., 611), in which it was held that the words "arising out of the termination of the tenancy of the holding" in Section 16, Sub-section 1 of the Agricultural Holdings Act, 1923, apply to the whole of the preceding part of this sub-section with the result that the determination of the tenancy is a condition precedent to the right to demand the appointment of an arbitrator to deal with claims under the Act. An arbitrator appointed under the above section by the Minister of Agriculture and Fisheries has no jurisdiction to decide whether the tenancy has been determined or not, and when the question of the termination of the tenancy is disputed, a writ of prohibition will issue to prevent the arbitrator proceeding with the arbitration. *Harrison v. Ridgway* (133 L.T., 238; 23 L.G.R., 434) was another case under the same section. The defendant had let to the plaintiff a farm on a yearly tenancy from March 25, 1923, and contracted that he would, before the commencement of the tenancy, put all gates, rails and fences and the buildings in reasonable tenantable order and condition or allow the cost of such reparation. The plaintiff brought an action in the County Court claiming damages for the deterioration of his stock by reason of the defendant's breach of this covenant to repair. At the trial objection was taken by the landlord that the dispute ought to have been referred to

arbitration under Section 16 of the Agricultural Holdings Act, 1923, and that the County Court judge had no jurisdiction to hear the action. This objection was upheld by the County Court judge, but on appeal it was held, following the above-mentioned case of *Rex v. Powell*, that the question was not subject to arbitration as it did not arise out of the termination of the tenancy.

A similar construction of Section 15 (1) of the Agricultural Holdings (Scotland) Act, 1923, which corresponds with Section 16 of the English Act, was adopted in a Scottish case of *Westwood v. Barnett* ([1925] S.C., 624), where it was held that a claim made during the currency of the lease could not, prior to its termination, be referred to arbitration under the Act. So, too, in *Donaldson's Hospital v. Esslemont* ([1925] S.C., 199), a similar construction was given to Section 15 (1), and it was held that the claimant's title to compensation, which was disputed on the ground that the tenancy had not terminated, was not one of the matters remitted by the Act to the exclusive jurisdiction of the arbiter.

Macgregor v. Board of Agriculture for Scotland ([1925] S.C. 613) was another Scottish case which raised the question as to whether a loss to the tenant caused by the under-valuation of his way-going crop could be included in his claim for compensation for disturbance. Under the lease the landlord took over the way-going crop of grain from the outgoing tenant at fair prices, the quantity of the crop being ascertained, as provided for in the lease, by arbitration. After threshing it was found that the quantity had been underestimated in the arbitration. The outgoing tenant accordingly, under Section 10 of the Agriculture Act, 1920 (now Section 12 of the Agricultural Holdings Act, 1923), claimed as compensation for loss in connection with the sale of the farm produce a sum representing the difference between the price he had received for the grain and the price of the actual quantity threshed. The Court held, on an assumption that the tenant had suffered loss, that he was not entitled to compensation because the loss was not "directly attributable to the quitting of the holding," but had arisen from an error of the arbiters.

In *Montrose (Duke) v. Hart* ([1925] S.C., 160), also a Scottish case, the question was whether sufficient particulars of claim had been given to satisfy the requirements of Section 16, Subsection 2 of the Act, which provides that a claim will cease to be enforceable after the expiration of two months from the termination of the tenancy unless particulars have been given before the expiration of that period. The landlord wrote reserving a claim in respect of depletion of regular sheep stock which the tenant was under an obligation to maintain. This was followed

by a letter stating that only 51 per cent. of sheep received had been handed over, and that the amount to be claimed under this head would be intimated as soon as the precise number of sheep delivered was ascertained. It was held that the second letter gave sufficient particulars as it set out the nature and value of the claim, and the tenant received under it fair notice of the case he had to meet.

In *Rochester & Chatham Joint Sewerage Board v. Clinch* (95 L.J.Ch., 49; [1925] Ch., 753), the question that arose was under Section 26 of the Agricultural Holdings Act, 1923, which provides that on the making of a contract for sale of an agricultural holding held on a yearly tenancy, any then current and unexpired notice to determine the tenancy shall be null and void "if the contract for sale is made by the person by whom the notice to quit was given," unless the tenant has by writing agreed that the notice shall be valid. The defendant held his farm under a yearly tenancy. In December, 1914, the owner sold 64 acres of the farm to the plaintiffs, but the defendant continued to pay the whole rent to the owner. The owner died in 1919, and the defendant continued to pay the whole rent to her executors, leaving it to them to pay their proportion to the plaintiffs. On October 10, 1923, the executors and the plaintiffs together signed and served on the defendant a year's notice to quit on October 11, 1924. On October 1, 1924, the executors agreed to sell their portion of the farm to the defendant. It has been held that Section 26 of the Act applies even where the sale is to the tenant himself of part of the farm, and it was contended therefore that the sale by the executors to the tenant in this case rendered the current notice to quit null and void. The Court held that this was not the effect of the contract of sale, for it was made not "by the person by whom the notice to quit was given," but by one only of the parties, viz. the executors, who gave the notice to quit.

In *Falconer v. Chisholm's Trustees* ([1925] S.C., 742), a Scottish Court held, in a case where an hotel was let together with a farm, the rents of the hotel and farm being fixed at £40 and £72 per annum respectively, but the property otherwise being treated as one property in the lease, that the house was "let together with land other than the house" within the meaning of proviso (iii) of Sub-section 2 of Section 12 of the Increase of Rent and Mortgage Interest (Restrictions) Act, 1920, and therefore was excluded from the operation of that Act.

Boswell v. Crucible Steel Co. of America (94 L.J.K.B., 383; [1925] 1 K.B., 119) was a case where lessees covenanted to keep the inside of a house, including all "landlord's fixtures," in good repair. It was held that this did not oblige them to replace broken windows, which were not "landlord's fixtures" within

the meaning of the covenant, as that expression only applies to chattels which are brought by the landlord to the premises and affixed to the structure but do not form part of it. The windows, it was held, formed part of the structure of the house, and were therefore not repairable by the lessee.

In *Booth v. Thomas* ([1926] 1 Ch., 109) a lease contained a covenant by the lessor for quiet enjoyment. The lessor had enclosed a natural stream flowing through part of his property in a culvert. The culvert not being kept in repair, the water escaped and damaged the property demised to the lessee with whom the covenant for quiet enjoyment had been made. It was held that under that covenant the lessor had the duty of keeping the culvert in repair so as not to cause damage to the premises leased to the lessee, and was liable for the breach of covenant.

2. *Stock and Crops*.—By regulations made by the local authority for the County of Buckingham under the Sheep Scab (Amendment) Order, 1923, it was provided that sheep should be dipped as therein mentioned within a certain time after their arrival at a place of destination in this county, but the regulations were not to apply "to sheep which have within four weeks prior to their arrival in the district been double dipped in the manner provided by these regulations." In *Adams v. Galloway* (23 L.G.R., 588) it was held the words "double dipped" meant "twice dipped" and not dipped for a second time after a first dipping which took place before the commencement of the four weeks.

In *Dower & Co. v. Corrie MacColl & Sons* (42 Times L.R., 43), there was a sale of a quantity of barley to the plaintiffs "in the usual bags." The plaintiffs when it was delivered claimed to reject it on the ground of bad quality, and on the claim being referred to arbitration, it was awarded that they were entitled to reject and the sellers must refund the price. The sellers refused to carry out the award on the ground that the plaintiffs must return the barley to them in the condition in which they received it, which they were unable to do because, on receipt of the barley, they had turned it out of the bags and had bulked it in a warehouse and afterwards put it in different bags. It was held by the Court that the sellers must accept the rejection, as the contract was for the sale of barley not for the sale of barley in particular bags, and the plaintiffs were prepared to return the actual barley received by them.

3. *Adulteration*.—*Bridges v. Griffin* (94 L.J.K.B., 728 ; [1925] 2 K.B., 233) was a remarkable case where milk in its natural state was placed in a churn and some hours later when the cream had risen naturally to the surface but the milk had not otherwise been tampered with, a purchaser who asked for a

sample of new milk was served by drawing the milk off by a tap at the bottom of the churn. The milk so sold was found to be deficient in milk fat to the extent of 46 per cent. It was held that an offence had been committed, for there had been an abstraction of milk fat and the milk sold was not of the natural substance and quality demanded. It is not sufficient that the bulk from which the milk sold is taken should be in its natural state if the milk actually sold is not so.

In *Redman v. Knapp* (42 Times L.R., 131) it was held that "he purchased the milk with a written warranty" is not available as a defence to a vendor of milk adulterated by the addition of colouring matter contrary to Section 4 of the Milk and Dairies (Amendment) Act, 1922, which prohibits the sale of any milk to which colouring matter has been added, but neither includes such defence nor contains any provision that it is to be read with any Act containing such a defence.

4. *Taxes*.—In a Scottish case of *Lean v. Ball* ([1925] Sc. L.T., 617), 33 acres of grass land were occupied as a poultry farm, half an acre being cultivated for the production of green food for the poultry, and it was held that the land was occupied for the purposes of husbandry, and therefore the occupiers were liable to assessment for income tax under Schedule B and not under Schedule D.

5. *Miscellaneous*.—In *Yorkshire (E.R.) County Council v. Selby Bridge Proprietors* ([1925] Ch., 841), a toll bridge had been built under a statute of 1791 in place of an ancient ferry in a public highway with approaches which by the Act were to be considered part and parcel of the bridge. It was held that as the old highway consisted of the approaches to the ferry *plus* the passage across the river, and the substituted highway consisted of the approaches to the bridge *plus* the bridge, and as the old approaches were highways to which adjoining owners would be entitled to access, the substituted approaches were highways to which adjoining owners had similar rights of access. In *Moser v. Ambleside Urban Council* (23 L.G.R., 533), it was held that there may be dedication of a public right of way to a terminal point, *e.g.* to a place whence a waterfall may be viewed, so that any person using it must return the same way, but such a public right of way cannot be established merely by evidence of user as distinguished from dedication.

Reddaway v. Lancashire County Council (41 Times L.R., 422) was a case where, by an order purporting to be made under the Small Holdings and Allotments Acts, 1908 to 1919, a county council made an order to enforce its compulsory powers of hiring land, but it was contended that the council had not complied with the condition precedent imposed by Section 7, Sub-section 2 of the Act of 1908, namely, that the council has been unable

to acquire suitable land elsewhere on reasonable terms. The Court refused to grant an injunction to restrain the council from proceeding upon its order, as under Section 39, Sub-section 3, the order had no force until confirmed by the Minister of Agriculture and Fisheries and the Ministry had at the time seisin of the matter and an inquiry was in progress as to whether the order should be confirmed or not.

In *Barnard v. Evans* (94 L.J K.B., 932 ; [1925] 2 K.B., 794), a farm labourer shot a dog which was trespassing on his employer's land. On an information preferred against him for cruelly ill-treating the dog, the justices found that it was not necessary to use a shot-gun to drive the dog out of the field, and that substantial suffering was caused to the dog although it was not killed. The dog was not doing any damage and the labourer made no effort to drive it away before he shot it, which he did on the instructions of his master. It was held by the Divisional Court that he was guilty of "cruelly ill-treating" the dog within Section 1 of the Protection of Animals Act, 1911, and the justices were directed to convict.

AUBREY J. SPENCER.

Lincoln's Inn.

AGRICULTURAL STATISTICS, 1925.

(The Society is again indebted to the Ministry of Agriculture and Fisheries for its kindness in supplying, for inclusion in the Journal, the usual detailed and comparative tables of the latest agricultural statistics. For fuller information than can be given in the space available here, the Department's own admirable series of Reports on Agricultural Statistics should, of course, be consulted.—ED.)

ACREAGE.

TABLE I gives particulars of the acreage under the principal crops and of the numbers of live-stock.

One of the most noticeable features of the Returns during the last few years has been the acceleration of the shrinkage of the total area under cultivation. The total extent of land under crops and grass in England and Wales in 1925 represents a decrease of 121,000 acres compared with 1924, which following reductions in the preceding years means that over 1,300,000 acres less were under cultivation in 1925 than before the War. The distribution of the shrinkage as between arable land and permanent grass is a reduction compared with 1914 of 300,000 acres under the plough and 1,000,000 acres of pasture.

The process that had been proceeding over a long period prior to 1914 of a steady diminution of the land under crops being accompanied by an increase in the area under permanent grass,

after having been interrupted by the War appears to have now been resumed, arable land in the last three years having declined by 499,000 acres and permanent grass increased by 311,000 acres. Comparing the relative position by means of three-year averages, the proportion of arable land to the total area under crops and grass over the period 1912-1914 was 41 per cent., whereas over the period 1923-1925 the proportion was increased to 42·3 per cent. Although, however, recent years as compared with pre-war show a higher proportion of land under plough, the immediate tendency as indicated by the figures for each of the last three years is in the other direction, the proportion of arable to the total area of crops and grass which was 43·1 per cent. in 1923 having fallen to 42·2 per cent. in 1924 and to 41·5 per cent. in 1925.

Glancing briefly at the changes in individual crops the number of acres returned as under *Wheat* in 1925 was 45,000 acres (3 per cent.) less than in 1924. After the fall from the record acreage of 2,557,000 acres at the close of the War, the area under *Wheat* except for a revival in 1921 has shown a persistent decline to the extent that in 1925 there were 1,000,000 acres (41 per cent.) less under cultivation than in 1918. Compared with the average of the three years 1912-1914, the wheat area in 1925 was 291,000 acres (16 per cent.) less.

Barley showed a slight revival in 1925, the acreage in England being increased by 11,000 acres, although somewhat set off by a decrease of 7,000 acres in Wales. The area under this cereal was not so much influenced by war conditions as in the case of wheat, the highest area in recent years being the 1,637,000 acres recorded in 1920, which was over 300,000 acres more than last year. The 1,317,810 acres in 1925 represented a fall of 189,000 acres (13 per cent.) on the average of 1912 to 1914.

After a slight recovery in 1924, *Oats* fell in 1925 by nearly 170,000 acres. Compared with the pre-War average the acreage under this crop shows no very startling change, the decrease being only 6 per cent., although in point of fact the 1,868,000 acres of 1925 is the smallest area under this crop in any year since 1888.

Of the pulse crops, *Beans* in shrinking to 190,800 acres (i.e. 50,900 acres below 1924) occupied the smallest area ever recorded. The area devoted to this crop represents a shrinkage of a little less than 90,000 acres compared with the average immediately before the War and is only half that in the 'eighties of the last century.

The area under *Peas* has fluctuated considerably during the last few years and the decline of 40,000 acres in 1925 followed an increase of 30,000 in the previous year.

Since the violent drop of nearly 100,000 acres in 1923 the area under *Potatoes* has been more stable, the decrease of 14,000 acres in 1924 being followed by an increase of 41,000 acres in 1925, the total area in the latter year being 493,000 acres. Compared

with the pre-war position the potato area on the average of the three years 1923-1925 was 471,000 acres as against an average during 1912-1914 of 456,000 acres.

Among the Root crops the decline of *Turnips and Swedes* is again noticeable, the 806,000 acres of 1925 representing a fall of 26,000 acres compared with the previous year. In none of the last five years has the area under this crop reached 900,000 acres, whereas the average area in the five years immediately preceding the War was 1,084,000 acres.

The area under *Mangold* declined for the fourth year in succession, the area in 1922 (422,000 acres) having however been the highest since 1914. The area of 359,000 acres in 1925 compares with an average of 446,000 acres during the years 1912-1914.

The area under *Hops* in 1925 showed an increase of 359 acres following an increase of 1,000 acres in the previous year and thus restoring the greater part of the shrinkage of 1,500 acres in 1923. The total area of 26,256 acres in 1925 was, however, considerably below the pre-war ten-year average of 39,000 acres. It is a striking commentary on the changing habits of the people of this country to observe that in 1885 71,000 acres of hops were grown, in 1891 56,000 acres, and in 1911 33,000 acres. Of the 1925 total Kent contributed 16,000 acres (62 per cent.), Hereford being the next highest producing county with 4,000 acres (16 per cent.).

Whilst *Clover and Rotation Grasses* for Hay declined by 30,000 acres, that not used for Hay increased by nearly 56,000 acres, resulting in a net gain of 26,000 acres on the combined totals. The 2,574,000 acres in 1925 was, however, over 100,000 acres below the pre-war average.

The hopes which are entertained of a stimulus of the subsidy for *Sugar-Beet* rendering this crop one of the leading features of agriculture in this country, make the acreage returns of special interest. From an area of 2,300 acres in 1914 the sugar-beet crop increased to 8,000 acres in 1921 and 1922 followed by 16,900 acres in 1923, 22,441 acres in 1924 and a jump to 54,750 acres in 1925. Of the total area in 1925, Norfolk contributed 15,500 acres (28 per cent.), Suffolk 11,900 acres (22 per cent.), the other counties with over 1,000 acres being Cambs. 2,394 acres, Ely 5,779 acres, Essex 1,631 acres, Hunts. 1,359 acres, Lincolnshire 7,000 acres (Kesteven, 3,025; Lindsey, 2,298; Holland, 1,866); Nottingham, 1,630 and the East Riding, 1,037 acres.

It is too early as yet to obtain any definite indication of the effect of the extension of sugar-beet in displacing the acreage under other crops, but it is interesting to observe that the area devoted to sugar beet in Norfolk and Suffolk in 1925 represented 2 per cent. of the total area under crops in each of those counties, the highest proportion in any one county being 3.5 per cent. in Ely.

LIVE-STOCK.

All classes of *Horses* except one shared in the decline in numbers from 1,232,000 in 1924 to 1,164,000 in 1925, i.e. a drop of 68,000 or 6 per cent. Of the total, those used for agricultural purposes accounted for 773,000 (66 per cent.) as against the 782,000 of the previous year. This was 152,000 less than the average of 1905-1914 but not very far below the number in the last year of that decade (791,000). Although stallions increased from 4,700 to 4,800 the numbers compared unfavourably with the average of the preceding ten years (6,960).

The numbers of *Cattle* have been steadily rising since 1921, and the latest figure of 6,163,000 (which was 269,000, or 5 per cent. in advance of the previous year) was greater than at any time before the War and not far behind the 1917 record of 6,227,000. As compared with the average of 1905-1914 the present position reveals an increase of 355,000 or 6 per cent. All categories contributed their quota towards the progressive movement, those between one and two years old being prominent with a jump of 93,000 (9 per cent.). Cows and Heifers in calf and in milk rose from 2,663,000 to 2,713,000, thus setting up a new standard for these classes.

Sheep recorded a further satisfactory increase, advancing by 1,132,000 (8 per cent.) to 15,975,000, thus reaching the highest level of post-war years and more than making good the fall from 15,124,000 of 1919 to 13,386,000 in 1923. The average of the decade 1905-1914, however, stood considerably higher at 18,716,000. Lambs showed the greatest individual increase, rising from 6,292,000 to 6,705,000, i.e. by 414,000 or 7 per cent. Ewes kept for breeding did nearly as well, an additional 404,000 being kept. Even so, the total of 6,397,000 was 12 per cent. below the pre-war average.

The stimulus given to pig breeding in 1924 was followed by a heavy decline in 1925, the numbers falling from 3,228,000 to 2,644,000 or by 584,000 (18 per cent.). The latest position, however, may be not considered unsatisfactory having regard to the fact that the average of the previous ten years stood at 2,264,000 and that of 1905-1914 at 2,386,000. It is interesting to recollect that the record low year was 1918 with its 1,697,000. Breeding sows declined from 449,000 to 316,000 and bacon pigs from 2,747,000 to 2,303,000.

PRODUCTION OF CROPS.

Particulars of the production and yield per acre of the principal crops are given in Table II.¹

¹ Although the table includes particulars for Scotland, the requirements of space make it necessary to confine this review to England and Wales.

So far as *Wheat* is concerned, despite the reduction in the area sown the total production was above expectations, the yield per acre (18 2 cwt., i.e. nearly 33 bushels) being well over average. At 1,360,000 tons the total output in England and Wales was below that of the preceding year by only 3,000 tons. Even so, the fact that it was lower than at any time during the last twelve years must not be overlooked, and but for the particularly good yield the continued decline would have been much more pronounced.

Although the acreage under *Barley* in England and Wales increased by 3,500 in 1925, the production at 1,010,000 tons was 4,000 tons less than in 1924, owing to a slight drop in the out-turn per acre in England which, however, at 15·4 cwt. was as in 1924 well above the recent average.

The total of 1,379,000 tons of *Oats* produced in 1925 was 100,000 tons less than in the preceding year but was nevertheless some 26,000 tons ahead of 1923—, which year the crop began to recover from the set-back sustained in 1922. The average annual production of oats in England and Wales during 1923–1925 was 1,450 thousands of tons compared with 1,288 thousands of tons during 1912–1914. The average yield per acre in England in 1925 was again well above average, being in fact the same as in 1924, i.e. 15·1 cwt.

The total production of the three main Corn crops in England and Wales amounted to 3,749,000 tons as against 3,876,000 tons in 1924. This compares unfavourably with the average of the ten years 1914–1923 (4,255,000 tons), and even more so with the average over 1912–1914 which stood at 4,283,000 tons.

The heavy shrinkage in the acreage under *Beans* in 1925 naturally resulted in a greatly reduced production, the crop being estimated at only 159,000 tons as against 187,000 tons in 1924. The yield per acre was, however, excellent, being 2 cwt. above average. Over the period 1921–1924 the bean crop varied within the limits of 180,000 and 189,000 tons compared with 1914, when 250,000 tons were produced.

The total output of *Peas* also suffered owing to the drop in acreage, but the yield per acre was again above average, although in England slightly below that of 1924. From 1922–1924 the production of peas increased by 23,000 tons, after a loss of 29,000 tons in 1921, but in 1925 the crop was 15,800 tons less than in 1924.

The increase of 41,000 acres in the area under *Potatoes*, coupled with the good yield, resulted in over half a million more tons being produced in 1925 than in 1924. The 3,214,000 tons compared favourably with the average of 3,148,000 tons for 1914–1923, and is the heaviest crop since the 4,012,000 tons of 1924.

With the exception of 1921 the production of *Turnips* and

Swedes in 1925 was the smallest for the last twelve years, the reduced acreage being accompanied by a somewhat poor yield per acre. The quantity of 9,198,000 tons produced in 1925 was over 2½ million tons below that of the previous year and compared very unfavourably with the average of 1914–1923 (11,617,000 tons).

In 1925 *Mangolds* were again a good crop, the yield per acre being 20 tons as compared with the ten-year average of 19·1 tons. Owing, however, to the decreased acreage the total production fell by 693,000 tons.

Although the yield of “seeds” hay at 30½ cwt. per acre was again over-average, it fell 2 cwt. below the bumper crop of 1924, and consequently coupled with the somewhat reduced acreage the total production in 1925 fell to 2,562,000 tons as against 2,787,000 tons in 1924. The yield per acre from pasturage also fell below that of 1924, the total crop declining by 674,000 tons to 4,538,000 tons. Nevertheless at 7,100,000 tons the total production of all kinds of hay was above the average of the ten years 1914–1925 (6,927,000 tons).

As will be seen from Table III, the production of *Hops* declined in every area except the Weald of Kent where the 101,000 cwt. of 1925 was 24,000 cwt. above the 1924 crop. Kent accounted for 252,000 cwt. as against 304,000 cwt. in the preceding year. Taking England as a whole the production fell from 444,000 cwt. in 1924, to 355,000 cwt. in 1925. Although the yield of 13·5 cwt. per acre in 1925 was quite satisfactory it should be remembered that 1924 was an exceptionally good year, the yield per acre then being 17·1 cwt. as against the ten-year average of 11·0 cwt.

PRICES.

The monthly index numbers prepared by the Ministry of Agriculture and Fisheries show that over 1925 prices of agricultural produce grown in this country averaged out at 58 per cent. above pre-war as compared with 59 per cent. in 1924, 56 per cent. in 1923, 69 per cent. in 1922, 123 per cent. in 1921 and 191 per cent. in 1920. Although the decrease in the average of 1925 as a whole compared with the previous year was only slight, prices towards the end of 1925 were appreciably lower than in the same period of 1924, the average for October–December 1925 being 53 per cent. above pre-war as compared with 63 per cent. during the corresponding months in the previous year.

Tables IV and V give the average prices of British Corn during each week of 1925 and the annual averages for the last ten years. It will be seen that Wheat finished the year 1*d.* per cwt. higher than it started, the highest and lowest levels being the 13*s.* 10*d.* and 10*s.* 3*d.* of February 14 and October 17 and 24 respectively. At 12*s.* 2*d.* per cwt. for 1925 the price of British

Wheat was the highest annual average since 1921 when it stood at 16s. 8d. per cwt. Barley opened in January at 14s. 5d. and closed at 10s. 6d.—a drop of 3s. 11d. per cwt. An upward movement occurred in the Autumn, prices advancing from 10s. at 1st August to 15s. 3d. at 5th September, thereafter relapsing at regular stages to 10s. 6d. The annual average price compared unfavourably with the former year (11s. 9d. as against 13s. 1d.) but was better than in 1922 and 1923. Oats enjoyed a spell of about five months out of the twelve with prices exceeding 10s. per cwt. The year commenced with a figure of 9s. 9d. and closed at 9s. 3d., resulting in an annual average of 9s. 9d. This was the same as in the preceding year and 2d. in excess of 1923.

In Tables VI and VII are given the monthly average prices of fat stock and milking cows for 1924 and comparisons of the annual averages since 1915. Over the year as a whole prices of cattle showed little variation from those prevailing in 1924. First quality Shorthorns fetched 7d. per stone dead weight and second quality beasts, 2d. less. Second quality Devons at 12s. 6d. were 4d. higher than in the preceding year. With the exception of second quality Herefords prices of all grades of cattle were within 1d. or 2d. per stone of those in 1923. In most instances, as usual, May was the peak month, the lowest levels being reached in October. Prices of milking cows were distinctly less favourable in 1925 than in 1924, the first quality Shorthorns in milk fetching £34 9s. per head as against £36 9s. per head and first quality Calvers £32 6s. as against £33 2s. The monthly returns are not absolutely complete owing to the closing of store markets during December due to outbreaks of foot-and-mouth disease, but the effect of this on the annual average is probably slight.

Of the fat sheep Downs remained stationary at 16½d. per lb. for first quality and 14½d. per lb. for second quality. Longwools lost ½d. per lb. over the year and Crossbreds ¼d. per lb. The general trend of prices showed an upward movement for the first three months of the year followed by a gradual fall. The gain recorded by first quality Downs of ¼d. per lb. in April was an outstanding feature.

1925 seems to have been a good year for pig producers. First quality bacon pigs rose from 10s. 6d. to 12s. 6d. per stone dead weight, whilst first quality porkers gained 1s. 10d. on 11s. 5d. Second qualities of both were equally satisfactory. The fall from May to August was followed by a well-maintained increase during the remaining four months of the year.

TABLE I.—Acreage under Crops and Grass; and Number of Live Stock on the 4th June, 1925, and 4th June, 1924, in England and Wales.

	England (excluding Monmouth)		Wales (including Monmouth)	
	1925	1924	1925	1924
Total Area (excluding water)	Acres 32,037,243		Acres 5,098,762	
Total Acreage under Crops and Grass ¹	22,965,590	23,071,882	2,789,896	2,805,415
Arable Land	10,000,453	10,227,726	681,600	700,947
Permanent Grass for Hay	3,719,300	3,897,304	592,328	604,144
" " not for Hay	9,245,837	8,946,852	1,515,970	1,500,324
Rough Grazings	3,418,704	3,357,488	1,605,589	1,588,850
Wheat	1,476,292	1,518,188	23,336	26,616
Barley	1,264,983	1,254,452	52,827	59,620
Oats	1,688,808	1,851,827	179,568	186,121
Mixed Corn	106,516	115,631	17,908	18,899
Rye	49,862	58,314	200	328
Beans	189,896	240,567	917	1,127
Peas	130,664	170,442	498	720
Potatoes	469,655	423,566	23,586	23,676
Turnips and Swedes	759,051	783,394	47,410	49,070
Mangold	348,314	378,090	10,759	11,570
Cabbage for fodder, Kohl rabi and Rape	115,427	125,846	11,812	11,325
Vetches or Tares	87,992	111,595	506	705
Lucerne	53,851	64,368	169	247
Hops	26,256	25,897	—	—
Small Fruit ²	67,496	72,429	856	1,086
Orchards ³	232,715	234,087	5,366	5,390
Clover, Sainfoin and Grasses under Rotation, for Hay	1,537,315	1,564,757	184,773	187,279
Clover, Sainfoin and Grasses under Rotation not for Hay	738,722	686,800	12,914	108,851
Other crops	230,453	226,888	2,420	2,682
Bare Fallow	457,147	349,611	6,057	5,988
Horses used for Agriculture ⁴	No 686,915	No 695,116	No 86,285	No 87,378
Stallions being used for service	3,653	3,526	1,147	1,181
Unbroken Horses (One year and above)	119,295	147,263	24,441	29,452
Other Horses (Under one year)	34,416	42,215	10,459	12,586
Other Horses on Agricultural Holdings	172,547	187,240	25,082	26,241
TOTAL OF HORSES	1,016,826	1,075,360	147,414	156,838
Cows and Heifers in Milk	1,765,555	1,748,750	269,506	267,491
Cows in Calf but not in Milk	268,607	250,500	31,050	31,056
Heifers in Calf	346,311	384,333	32,143	33,072
Bulls being used for service	73,906	69,970	12,136	11,972
Other Cattle (Two years and above)	886,128	823,312	88,716	81,505
Other Cattle (One year and under two years)	993,021	903,732	184,666	180,654
Other Cattle (Under one year)	1,011,737	967,084	199,848	192,898
TOTAL OF CATTLE	5,345,265	5,095,681	818,065	798,648
Wewes kept for Breeding	4,684,551	4,354,046	1,712,540	1,639,535
Rams and Ram Lambs to be used for service	130,447	123,651	50,177	49,926
Other Sheep (One year and above)	2,110,509	1,798,094	581,182	586,109
Other Sheep (Under one year)	5,158,247	4,826,224	1,647,141	1,465,610
TOTAL OF SHEEP	12,083,754	11,102,015	3,991,040	3,741,180
Sows kept for Breeding	288,779	410,961	27,675	38,061
Boars being used for service	22,994	30,446	1,484	1,820
Other Pigs	2,129,728	2,527,925	173,696	219,117
TOTAL OF PIGS	2,441,501	2,969,332	202,855	258,998

¹ Not including Rough Grazings² Including Small Fruit in Orchards, which in 1925 totalled 31,162 acres in England and 282 acres in Wales³ Including Mares kept for breeding

**TABLE II.—Total Produce, Acreage, and Yield per
(a) in 1925 and 1924, with the Average yield**

Crops	Total Produce		Acreage		Yield per Acre		Average of the Ten Years 1915-1924
	1925	1924	1925	1924	1925	1924	
WHEAT.							
	Tons	Tons	Acres	Acres	Cwt.	Cwt.	Cwt.
*England . . .	1,343,000	1,344,000	1,476,160	1,518,148	18.2	17.7	17.2
†Wales . . .	17,000	19,000	23,336	26,616	15.1	14.3	15.0
Scotland . . .	54,000	49,000	48,617	49,449	22.4	19.8	21.1
GREAT BRITAIN .	1,414,000	1,412,000	c 1,548,113	c 1,594,213	18.3	17.7	17.2
BARLEY.^b							
*England . . .	975,000	977,000	1,261,757	1,254,433	15.4	15.6	14.7
†Wales . . .	35,000	37,000	50,827	50,593	13.2	12.3	13.2
Scotland . . .	143,000	129,000	171,701	151,588	18.6	17.1	16.9
GREAT BRITAIN .	1,153,000	1,143,000	d 1,470,485	d 1,465,614	15.7	15.6	14.8
OATS.							
*England . . .	1,278,000	1,401,000	1,688,151	1,851,098	15.1	15.1	13.7
†Wales . . .	101,000	98,000	179,460	185,999	11.2	10.5	11.1
Scotland . . .	716,000	701,000	925,995	955,535	15.5	14.7	14.3
GREAT BRITAIN .	2,095,000	2,200,000	e 2,793,606	e 2,992,632	15.0	14.7	13.7
BEANS.							
*England . . .	158,400	186,500	178,612	226,727	17.7	16.4	15.4
†Wales . . .	500	680	691	880	15.3	15.5	15.4
Scotland . . .	3,000	3,500	3,409	3,732	17.6	18.7	19.1
GREAT BRITAIN .	161,900	190,680	(f) 182,712	(f) 231,339	17.7	16.5	15.5
PEAS.							
*England . . .	64,300	80,100	88,347	108,099	14.6	14.8	13.6
†Wales . . .	100	100	139	202	12.2	8.9	11.1
Scotland . . .	30	23	60	57	9.8	8.3	11.1
GREAT BRITAIN .	64,430	80,223	(f) 88,546	(f) 108,358	14.6	14.8	13.6

* Excluding Monmouth.

† Including Monmouth.

(a) The particulars for Scotland have been furnished by the Board of Agriculture for Scotland.

(b) Including Bere.

(c) Exclusive of a certain area (amounting in 1925 to 132 acres) the produce of which was cut green.

(d) Exclusive of a certain area (amounting in 1925 to 246 acres) the produce of which was cut green.

(e) Exclusive of a certain area (amounting in 1925 to 565 acres) the produce of which was cut green.

(f) Exclusive of a certain area (amounting in 1925 to 11,510 acres of beans and 43,073 acres of peas) the produce of which was cut or picked green.

**Acre of each of the Principal Crops in Great Britain
per acre of the Ten Years 1915-1924.**

Crops	Total Produce		Acreage		Yield per Acre		Average of the Ten Years 1915-1924
	1925	1924	1925	1924	1925	1924	
POTATOES.	Tons	Tons	Acres	Acres	Tons	Tons	Tons
*England . . .	3,078,000	2,590,000	480,855	428,566	6 6	6 0	6 2
†Wales . . .	136,000	106,000	23,596	23,876	5 8	4 5	5 3
Scotland . . .	905,000	845,000	142,155	138,281	7 0	6 1	6 5
GREAT BRITAIN .	4,209,000	3,541,000	635,396	590,523	6 6	6 0	6 2
TURNIPS AND SWEDES.							
*England . . .	8,586,000	10,938,000	758,076	781,825	11 3	14 0	12 5
†Wales . . .	612,000	600,000	47,410	49,070	12 9	12 2	31 7
Scotland . . .	6,315,000	6,732,000	395,940	405,693	17 2	16 6	16 7
GREAT BRITAIN	16,013,000	18,290,000	1,201,426	1,236,588	13 3	14 8	13 8
MANGOLDS.							
*England . . .	6,940,000	7,650,000	347,226	376,478	20 0	20 3	19 1
†Wales . . .	190,000	173,000	10,759	11,370	17 7	14 9	17 1
Scotland . . .	20,900	22,700	1,117	1,316	18 7	17 2	18 5
GREAT BRITAIN	7,150,900	7,845,700	(h) 359,102	(h) 389,364	19 9	20 2	19 1
HAY from CLOVER, SAIN- FOIN, &c.					cwt.	cwt.	cwt.
*England . . .	2,341,000	2,542,000	1,537,315	1,564,757	30 5	32 5	28 9
†Wales . . .	221,000	245,000	184,773	187,279	24 0	26 2	24 8
Scotland . . .	647,000	720,000	403,097	415,322	32 1	34 7	31 1
GREAT BRITAIN .	3,209,000	3,507,000	2,125,185	2,167,358	30 2	32 4	29 0
HAY from PERMANENT GRASS.							
*England . . .	3,999,000	4,592,000	3,719,300	3,897,304	21 5	23 6	21 0
†Wales . . .	539,000	620,000	592,326	604,144	18 2	20 5	19 4
Scotland . . .	245,000	254,000	156,244	154,765	31 3	32 8	30 5
GREAT BRITAIN .	4,783,000	5,466,000	4,467,870	4,656,213	21 4	23 5	21 1

(g) Exclusive of a certain area (amounting in 1925 to 975 acres) on which the crops were grown for the production of seed.

(h) Exclusive of a certain area (amounting in 1925 to 1,088 acres) on which the crops were grown for the production of seed.

TABLE III.—Hops:—Total Produce, Acreage, and Yield per Acre, in 1925 and 1924, in each County of England in which Hops were grown; and the Average Yield of the Ten Years 1915–1924.

Counties	Total Produce		Acreage		Yield per Acre		Average of the Ten Years 1915–24
	1925	1924	1925	1924	1925	1924	
	Cwt.	Cwt.	Acres	Acres	Cwt.	Cwt.	Cwt.
TOTAL FOR ENGLAND .	355,000	444,000	26,256	25,897	13 5	17 1	11 0
Kent { East . . .	63,000	70,000	3,693	3,659	17 1	19 2	11 9
Mid . . .	88,000	109,000	5,418	5,411	16 2	20 2	12 9
Weald . . .	101,000	125,000	7,150	6,897	14 2	18 1	11 3
Total Kent . .	252,000	304,000	16,261	15,967	15 5	19 1	12 0
Hampshire . . .	13,000	16,000	1,045	1,037	12 3	15 3	10 1
Surrey	2,200	4,200	179	216	12 2	19 5	9 0
Sussex	28,000	44,000	2,413	2,389	11 6	18 2	10 5
Hereford . . .	40,000	50,000	4,186	4,101	9 5	12 3	8 6
Worcester . . .	19,000	25,000	2,059	2,080	9 3	11 9	9 1
Other Counties ¹ .	950	1,200	113	107	8 4	10 8	7 0

¹ Salop, Gloucester and Berkshire.

TABLE IV.—Average Prices of British Corn per cwt. (of 112 Imperial Standard lbs.)¹ in England and Wales, as ascertained under the Corn Returns Act, 1882, and the Corn Sales Act, 1921, in each Week of the Year 1925.

1925 Received in Week Ended		Wheat	Barley	Oats
		s. d.	s. d.	s. d.
January	3	12 4	14 5	9 9
"	10	12 9	14 10	9 11
"	17	13 1	14 9	10 1
"	24	13 2	14 8	10 2
"	31	13 4	14 0	10 2
February	7	13 8	13 5	10 3
"	14	13 10	13 1	10 3
"	21	13 7	12 8	10 1
"	28	13 5	12 4	9 11
March	7	13 5	12 2	9 9
"	14	13 5	11 6	9 9
"	21	13 4	11 5	9 9
"	28	12 11	11 1	9 9
April	4	12 6	10 10	9 5
"	11	12 3	10 9	9 7
"	18	12 2	10 4	9 6
"	25	12 2	10 7	9 6
May	2	12 4	10 4	9 9
"	9	12 5	10 8	9 11
"	16	12 8	10 6	10 0
"	23	12 10	10 5	10 4
"	30	12 11	10 5	10 5

¹ Section 8 of the Corn Returns Act, 1882, as amended by Section (2) of the Corn Sales Act, 1921, provides that in the weekly summary of quantities and prices each sort of British corn shall be computed with reference to the hundredweight of one hundred and twelve imperial standard pounds.

TABLE IV—continued.

1925		Wheat		Barley		Oats	
Received in Week Ended							
		s.	d.	s.	d.	s.	d.
June	6	13	0	10	5	10	
"	13	13	0	10	6	10	5
"	20	12	10	10	2	10	4
"	27	12	7	10	0	10	5
July	4	12	3	9	10	10	5
"	11	11	11	10	2	10	2
"	18	11	9	10	0	10	4
"	25	11	9	10	4	10	4
August	1	11	11	10	0	10	3
"	8	11	10	11	2	10	3
"	15	11	9	12	1	10	1
"	22	11	9	13	10	9	11
"	29	11	7	14	6	9	8
September	5	11	8	15	3	9	9
"	12	11	8	14	4	9	8
"	19	11	6	13	7	9	8
"	26	11	3	13	4	9	7
October	3	10	11	12	9	9	6
"	10	10	4	12	5	9	4
"	17	10	3	12	4	9	2
"	24	10	3	12	1	9	1
"	31	10	7	11	11	9	0
November	7	10	11	11	8	9	0
"	14	11	1	11	9	9	1
"	21	11	3	11	5	9	2
"	28	11	5	11	3	9	1
December	5	11	10	10	9	9	3
"	12	12	3	10	10	9	3
"	19	12	7	10	8	9	4
"	26	12	5	10	6	9	3
Average for year		12	2	11	9	9	9

TABLE V.—Annual Average Prices *per cwt.* (of 112 Imperial Standard lbs.) of British Wheat, Barley, and Oats, in England and Wales, in each year from 1916 to 1925, as ascertained under the Corn Returns Act, 1882, and the Corn Sales Act, 1921; with the Value of £100 of Tithe Rent-Charge.

Year	Annual Average Price per cwt.						Value of Tithe Rent-Charge of £100		
	Wheat		Barley		Oats		£	s.	d.
1916 . . .	13	7	15	0	12	0	92	1	0½
1917 . . .	17	8	18	1	17	11	109	3	11
1918 . . .	17	0	16	6	17	9	109	3	11
1919 . . .	17	0	21	2	18	9	109	3	11
1920 . . .	18	10	25	0	20	5	109	3	11
1921 . . .	16	8	14	7	12	3	109	3	11
1922 . . .	11	2	11	2	10	5	109	3	11
1923 . . .	9	10	9	5	9	7	109	3	11
1924 . . .	11	6	13	1	9	9	109	3	11
1925 . . .	12	2	11	9	9	9	109	3	11

¹ The Tithe Act, 1918, fixes the value of Tithe Rent-Charge, up to the year 1925 inclusive, at the sum payable in 1918, i.e. the value based on the septennial averages for the period ended 1917.

² As regards any sum becoming payable in respect of Tithe Rent-Charge before the appointed day to be fixed by Order in Council under the Tithe Act, 1925, the value is to be taken at £109 3s. 11d. for every £100 Tithe Rent-Charge, commuted value (see Sections 1 and 25 of the Tithe Act, 1925).

TABLE VI—Monthly Average Prices of Fat Stock and Milking Cows in England and Wales during the Year 1925

Description	Quality	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Per cwt live weight														
FAT CATTLE														
Shorthorns	1	59	3 39	2 39	11 61	4 63	0 62	2 39	9 59	3 38	8 37	7 38	6 60	5 54 11
	2	51	4 31	10 52	3 53	11 55	3 55	0 3	1 52	6 51	4 49	2 49	1 50	11 52 2
Hertfords	1	58	10 60	5 61	9 62	11 65	0 63	2 60	8 59	3 38	10 57	0 58	1 59	7 60 5
	2	52	3 34	1 55	5 56	7 57	2 55	0 53	1 51	11 51	5 50	1 30	8 52	7 53 5
Devons	1	57	6 57	10 59	9 58	11 61	3 60	9 59	1 57	9 57	8 56	9 59	3 60	0 58 10
	2	52	0 52	6 54	0 54	2 55	3 56	0 52	6 51	3 52	4 47	0 45	6 50	9 51 11
Fat Cows	1	4 10	46	7 46	11 47	9 48	10 48	4 45	5 44	7 44	7 42	10 43	7 45	1 45 10
	2	38	8 38	5 38	11 39	9 40	9 39	11 38	2 37	9 37	3 35	7 35	8 36	10 38 2
Per stone dead weight														
Shorthorns	1	13	4 13	6 13	8 13	8 13	8 13	7 13	4 13	4 13	1 12	10 13	0 13	2 13 4
	2	11	8 11	11 12	0 12	2 12	3 12	2 11	10 11	10 11	8 11	7 11	6 11	5 11 10
Hertfords	1	12	5 12	10 14	0 14	0 14	0 13	7 13	1 13	4 13	0 12	9 12	9 13	0 13 3
	2	11	8	—	12	0 12	6 12	6 12	2 12	5 12	3 11	8 11	7 11	5 12 2
Devons	1	13	10 13	10 14	1 14	4 14	3 14	2 13	8 13	9 13	6 13	1 13	5 13	10 13 10
	2	12	5 12	7 12	7 13	0 12	10 12	7 12	5 12	8 12	3 11	11 12	3 12	9 12 6
Fat Cows	1	10	5 10	10 10	7 10	9 10	9 10	8 10	6 10	5 10	3 10	1 10	3 10	6 10 6
	2	8	7 8	8 8	9 8	11 8	9 8	11 8	10 8	9 8	8 8	5 8	9 8	9 8 9
Per head														
MILKING COWS														
Shorthorns for Milk	1	35	15 34	17 33	14 33	10 33	18 33	4 34	6 34	17 34	9 33	9 34	19	34 9
	2	28	6 27	13 26	8 26	4 26	5 25	17 26	13 26	17 26	10 27	5 26	5	26 15
Calvers	1	33	13 32	2 31	13 30	17 31	11 31	5 32	3 3	9 33	5 33	10 32	10	32 6
	2	26	15 26	1 25	9 25	2 25	10 25	6 25	13 25	19 25	19 26	6 24	13	25 14
Per lb														
VEAL CALVES	1	13½	14½	14½	14½	14½	14½	13½	13½	13½	12½	12½	11½	13½
	2	11½	12½	12½	12½	12½	12½	11½	11½	11½	10½	11½	11½	11½
FAT SHEEP														
Downs	1	18½	18½	19	19½	17½	17	16½	16	15½	14½	15	14½	16½
	2	16½	16½	17	17	16	15	14	13½	13½	12½	12½	12½	14½
Longwols	1	17½	17½	18	18	16½	15½	14½	14	13½	13½	13½	13½	15½
	2	14½	15½	15½	15	13½	12½	12	11½	11	11	11½	10½	12½
Crossbreds	1	18½	18½	18½	18½	17½	16½	15½	15½	14½	14½	14½	14½	16½
	2	16	16½	16½	16½	15½	14½	13½	13½	12½	12½	12½	12½	14½
Per stone dead weight														
FAT PIGS														
Bacon Pigs	1	11	9 12	3 12	9 12	11 12	2 11	6 11	5 12	0 12	11 13	3 13	5 14	0 12 6
	2	10	6 11	1 11	8 11	9 11	1 10	6 10	5 10	11 11	11 12	2 12	6 13	0 11 5
Porkers	1	12	8 13	0 13	6 13	7 12	10 12	1 12	0 12	7 13	7 14	0 14	5 15	1 13 3
	2	11	6 11	10 12	4 12	5 11	9 11	0 11	0 11	7 12	6 13	0 13	5 14	1 12 2

1 The majority of the store markets were closed owing to Foot and Mouth Disease Restrictions

TABLE VII.—Yearly Average Prices of Fat Stock and Milking Cows in England and Wales during the Years 1915–1925.

Description	Quality	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	
Per stone dead weight													
FAT CATTLE		s	d	s	d	s	d	s	d	s	d	s	d
Shorthorns	1	11	9 13	8 17	9 16	8 18	4 21	9 19	10 14	9 13	6 13	7 13	4
	2	10	9 12	6 16	3 16	8 18	4 20	9 18	0 12	10 11	11 12	0 11	10
Herefords	1	11	10 13	9 17	7 16	8 18	4 21	9 19	8 14	3 13	3 13	3 13	3
	2	10	8 12	7 16	3 16	8 18	4 21	1	—	12 10	11 9	12 4	12
Devons	1	11	11 13	7 17	6 16	8 18	4 21	10 20	4 15	0 13	9 13	10 13	10
	2	10	10 12	1 16	0 16	8 18	4 1	18 10	13 5	12 4	12 2	12 6	
Per head													
MILKING COWS:		£	s	£	s	£	s	£	s	£	s	£	s
Shorthorns in milk	1	26	6 34	5 45	3 33	15 52	11 61	6 34	13 30	3 36	6 36	9 34	9
	2	21	14 27	10 35	14 41	16 39	3 48	9 41	19 30	6 28	8 28	10 26	15
Calvers	1	24	18 32	19 42	2 48	17 47	14 58	1 50	19 35	15 13	8 13	2 12	6
	2	20	15 26	13 33	15 38	19 36	8 45	7 40	5 28	12 26	5 27	7 25	14
Per lb													
VEAL CALVES	1	d	d	d	d	d	d	d	d	d	d	d	
	2	10 1	12 1	16	15 1	13 1	21	18	14 1	13 1	13 1	13 1	
FAT SHEEP	1	d	d	d	d	d	d	d	d	d	d	d	
Downs	2	10	12	15	1 1	17	21	17	15 1	14 1	14 1	14 1	
Longwools	1	10 1	12 1	15 1	1 1	17 1	22 1	18	16 1	15 1	15 1	15 1	
	2	9 1	11 1	14 1	1 1	17 1	21 1	15 1	14 1	13 1	13 1	12 1	
Crossbreds	1	11	13 1	16 1	16	17 1	22 1	19 1	17 1	16 1	16 1	16 1	
	2	10	12	15	15 1	17 1	21 1	17 1	1 1	14 1	14 1	14 1	
Per stone dead weight													
FAT PIGS		s	d	s	d	s	d	s	d	s	d	s	d
Bacon Pigs	1	9	7 12	4 16	7 19	0 21	2 24	8 17	0 14	0 12	3 10	6 12	6
	2	9	0 11	7 15	9 19	0 21	2 23	8 15	6 12	7 11	0 9	4 11	5
Porkers	1	10	0 13	2 17	2 19	0 21	2 25	10 18	10 15	7 13	10 11	5 13	3
	2	9	6 12	6 16	5 19	0 21	2 24	2 17	4 14	3 12	8 10	4 12	2

TABLE VIII.—Quantities and Declared Values of Imports of the principal Agricultural Commodities into Great Britain and Northern Ireland in 1924 and 1925, with the Average of Imports into the United Kingdom for the Years 1911 to 1913.

Commodities	Quantities			Declared Values		
	Annual Average, 1911-13	1924*	1925†	Annual Average, 1911-13	1924*	1925†
<i>Grain and Meal</i>						
Wheat	Tons 5,225,307	Tons 5,871,026	Tons 4,886,667	£ 43,008,074	£ 69,003,980	£ 68,456,570
Wheat Meal and Flour	537,213	552,293	450,093	5,714,439	8,325,334	8,263,526
Barley	1,118,516	1,082,818	793,685	8,071,609	12,093,314	8,573,428
Oats	912,268	615,787	425,123	5,800,459	4,316,061	3,763,479
Oatmeal (including Groats and Rolled Oats)	40,285	44,428	38,525	602,913	878,447	797,223
Peas	112,485	89,017	71,104	1,103,733	1,601,969	1,447,726
Beans (other than Haricots)	63,771	62,666	53,182†	471,456	789,960	797,023†
Malze	2,101,910	1,883,351	1,382,409	12,692,064	16,994,379	13,103,352
Malze Meal and Flour	29,099	86,711	144,437	215,885	919,943	1,411,742
<i>Meat.</i>						
Beef	443,922	680,537	688,084	15,964,027	81,975,374	36,826,675
Mutton and Lamb	267,267	260,544	279,880	10,331,026	20,067,815	22,814,831
Pork (including Bacon and Hams)	316,979	542,064	517,754	19,781,134	50,847,545	57,696,030
Unenumerated (including Rabbits)	75,492	25,066	40,893	3,030,963	1,660,647	2,561,622
Total Dead Meat	1,101,650	1,508,211	1,526,611	49,107,150	104,571,381	119,899,158
Butter	207,448	264,362	292,725	24,346,157	49,647,492	53,216,141
Cheese	115,908	144,376	155,108	7,196,490	13,562,406	15,711,615
Milk, (condensed)	60,466	110,719	112,081	2,140,602	5,739,485	5,073,808
Eggs	Gt. Hundreds 19,907,613	Gt. Hundreds 20,279,490	Gt. Hundreds 21,974,042	8,620,894	15,475,588	16,660,510

* Revised figures.

† Subject to revision.

‡ Includes Haricots.

Note.—The figures for 1924 and 1925 include the trade of Great Britain and Northern Ireland with the Irish Free State, and exclude the direct foreign trade of the Irish Free State.

IMPORTS.

In Table VIII are given the quantities and values of imports of the principal agricultural commodities into Great Britain and Ireland in 1924 and 1925. Although for purposes of comparison with pre-War trade the average annual imports during 1911-1913 are also given, these figures relate to imports into the United Kingdom as a whole and thus include direct imports to what is now the Irish Free State. It must also be borne in mind that the imports into Great Britain and Northern Ireland in 1924 and 1925 include imports from the Irish Free State and consequently comparison of the figures for these years with those of 1911-1913 are apt to be misleading in the case of commodities like pork (including bacon), butter and eggs.

Grain and Meal.

The total imports of *Wheat* into Great Britain and Northern Ireland in 1925 were only 4,887,000 tons as against 5,871,000

tons in 1924, but the decline in the total value was proportionately much less. So far as the countries of supply are concerned, the most striking change was that in imports from the Argentine which fell from an average of 1 million cwt. in each of the years 1923 and 1924 to only half a million in 1925. On the other hand, Australian imports totalled 800,000 tons in 1925 as against 230,000 tons in 1923 and 540,000 tons in 1924. Of the other main sources of supply, Canada sent 1,500,000 tons in 1925 as against nearly 2 million tons in 1924. Receipts from the United States were 1,400,000 tons and from British India about 400,000 tons.

The imports of *wheat-meal* and *flour* in 1925 were 200,000 tons from Canada, 1,400,000 tons from the United States and 70,000 tons from Australia.

The *Barley* imports fell considerably in both quantity and value in 1925. The principal sources of supply of this commodity were the United States which sent 280,000 tons, Canada 150,000 tons, Chile 38,000 tons and Australia 17,000 tons.

The imports of *Oats* showed a decline in 1925, the principal shrinkage being in the imports from the Argentine which totalled only 65,000 tons as against 176,000 tons in 1924. The quantities from Canada and United States remained about the same as before, at about 150,000 tons from the former and 110,000 tons from the latter, and 43,000 tons were received from the Irish Free State.

The imports of *Maize* were considerably below the levels of both 1923 and 1924. Of the supply received in 1925 the bulk came from the Argentine (840,000 tons), the principal other individual source of supply being Roumania, from which 70,000 tons were received.

Meat.

Supplies of imported meat in 1925 were dearer than in the previous year, an increase of 1 per cent. in the total quantity being accompanied by an increase of 14.5 per cent. in the value declared at the Ports. Of the *beef* supplies 412,000 tons (of which 375,000 tons came from the Argentine) arrived in the form of chilled meat and 206,000 tons as frozen (including 76,000 from the Argentine and 68,000 from Australia). Practically all the *mutton* was frozen, the principal contributors being New Zealand with 125,000 tons and Argentine with 92,000 tons. Of the supplies of *pig-meat* in 1925 374,000 tons arrived as bacon (including 187,000 tons from Denmark, 75,000 tons from the United States, 63,000 tons from Canada and 23,000 tons from the Irish Free State), 76,000 tons as hams (including 65,000 tons from the United States), 50,000 tons as fresh pork (40,000 tons from Holland and 9,000 tons from the Irish Free State) and

10,000 tons as frozen (principally from the United States). Of the meat stuffs not separately enumerated the highest single item was that of 15,000 tons of rabbits (mainly Australian frozen).

Although not shown in the table attached to this article, account must also be taken of the imports of live animals for food. The total number of cattle arriving in 1925 was over 800,000 valued at £15,748,000 (including 688,000 head valued at £12,731,000 from the Irish Free State and 110,000 head valued at £2,959,000 from Canada). The Irish Free State also sent 400,000 head of sheep and lambs valued at £1,209,000, together with nearly 98,000 pigs valued at over £619,000.

Dairy Produce.

The *Butter* supply increased in 1925 to a total supply of nearly 293,000 tons, of which 83,000 tons came from Denmark, 63,000 tons from New Zealand, 58,000 tons from Australia, 24,000 tons from Argentina, 20,000 tons from the Irish Free State and nearly 15,000 tons from Russia. Of the *Cheese* supply of 155,000 tons, nearly 70,000 tons were received from New Zealand, 63,000 tons from Canada, 8,000 tons from Italy and 7,000 tons from Holland. In the case of *Condensed Milk* it will be noticed that although the imports increased slightly in quantity from 110,700 tons in 1924 to 112,000 tons in 1925 the value decreased from £5,739,000 to £5,074,000. Imports of *Eggs* increased somewhat in 1925, the principal supplies being (the figures being in great hundreds in each case) 5,836,000 from Denmark, 4,567,000 from the Irish Free State, 1,692,000 from the Netherlands and about 1 million each from Egypt, China and Poland.

Total Imports.

Although it is not possible within the limits of this article to attempt any general valuation of the total imports of food supplies and other agricultural produce to this country, it may be noted that of the £335 million spent on food imports in 1925 (£317 million on the commodities enumerated in the Table and £17½ million on live meat), some £106 million went on the purchase of grain and meal, £137½ million on meat (of which £120 million was on dead meat), and £91 million on butter, cheese, milk and eggs. It may be of interest to add that of the total amount so spent, £193 million went to foreign countries, £110 million to British Dominions and £24 million to the Irish Free State.

R. E. STANLEY.

NOTES, COMMUNICATIONS AND REVIEWS.

SIR J. BOWEN BOWEN-JONES, BART.

FOR a period of wellnigh sixty years there were few, if any, names better known in agricultural circles than John Bowen Jones, latterly known as Sir J. Bowen Bowen-Jones, Bart.

John Bowen Jones was born in London in 1840, and was the eldest surviving son of John Jones, of the City of London and of Eaton House, in the Parish of Tottenham, Middlesex, Merchant, by Anne, daughter of Thomas Bowen, of the Parish of Welshpool. He was educated at Tottenham Grammar School and at Cirencester College, where he graduated R.R.A.C. in 1859. In September 1863 he married Elizabeth Margaret, daughter of Mr. Evan Bowen, of Ensdon House, Montford. Unfortunately his wife, who died in 1904, did not live to experience the satisfaction she would have felt when, in recognition of his public services, he was created a Baronet in 1911.

From 1863 to 1872 he farmed in partnership with Mr. Evan Bowen at Ensdon House, but on the dissolution of the partnership, Mr. J. Bowen Jones took over the farm with the pedigree stock. With characteristic energy and perseverance he steadily built up his reputation as a breeder of Shropshire Sheep and Hereford Cattle, his name in connection with the breeding of Shropshire Sheep being known the world over, the Ensdon House flock being largely drawn upon for export, mainly to the United States and Canada.

He was not content with being a mere breeder and exhibitor, and he became associated with various organisations having for their objects the improvement of agriculture, and this active interest he sustained for a period of fully sixty years.

As early as 1867 Sir Bowen Bowen-Jones joined the Royal Agricultural Society, in fact, at the time of his death he was the "Father" of the Council, having been elected to the Society's governing body in 1871. During the period of more than half a century Sir Bowen served the Society in many offices. He was a steward of implements from 1881 to 1883 and from 1897 to 1899; he was a steward of forage in 1884, a steward of stock from 1890 to 1893, and steward of the Agricultural Education Exhibition from its inception in 1903 till 1914. He was also one of the original members of the National Agricultural Examination Board. In his younger days Sir Bowen took a prominent part in the work of many standing committees, but he will probably be best remembered for his activities as Chairman for several years of the Chemical and Woburn Committee.

Among Sir Bowen's contributions to the Society's Journal was an article on "Typical Farms in Cheshire," which he wrote in connection with the Society's visit to Chester in 1893.

Sir Bowen had been elected a Vice-President in 1905 and a Trustee in 1909. He filled the office of President in the year 1919 for the Cardiff meeting, the first post-war show, which will be remembered as the most successful ever held up to that time.

He had frequently officiated as Judge of Shropshire Sheep and Hereford Cattle at the R.A.S.E., Bath and West of England, Smithfield, Birmingham, Highland, Royal Dublin, and other agricultural shows. He had also acted as Judge and Reporter on R.A.S.E. Prize Farms. In the formation of the Shropshire Sheep Breeders' Association in 1882 he took a leading part, and was its President from its inception until 1915, a period of thirty-three years. The first volume of the Shropshire Flock Book, published in 1883, contains a short article from Sir Bowen's pen on the antiquity and history of the breed.

A recital of Sir Bowen's activities in connection with agriculture or the public good is largely the story of most of the important movements and developments of the past fifty years. He was a member of the Government Commission on Pleuropneumonia and Tuberculosis, which reported in 1888, and was one of the Royal Commissioners for the improvement of the breeding of horses. He was Past President of the Farmers' Club (London), Smithfield Club, National Sheep Breeders' Association, Shropshire and West Midland Agricultural Society, Midland Farmers' Club, Royal Agricultural College Club, and of the Shropshire Chamber of Agriculture, of which he was for some few years Honorary Secretary.

In his own county, agricultural organisations for over half a century had in Sir Bowen one of their hardest workers. It must remain one of the many marvels in the life of this remarkable man that in addition to his services to agriculture in all parts of the country he found time to devote himself to some of the heaviest duties in local government work. He was for a quarter of a century Chairman of the Salop County Council, but for ten years before that he had been Chairman of the Atcham Board of Guardians. During his many years on that Board he did valuable work and his name became known throughout the Poor Law world for his able report, published in 1890, on the progress of the Atcham Union.

He will remain best remembered for his work in connection with the Shropshire County Council and all its kindred bodies. He was an original member of that body, and as an Alderman was on the Council up to his death. For five years he was vice-chairman under the first chairman of the Council,

Mr. Alfred Salwey, and his successor, Mr S K. Mainwaring. On the death of Mr Mainwaring in October 1895 Sir Bowen was elected Chairman, and continued to hold that office until 1919. During that time he gave himself unsparingly to the work of the county, acting as Chairman of the Finance Committee, a member of the Education and other committees. His desire was to retire from the chair a year or two before he did, but his sense of duty kept him at his post as Chairman right through the dark days of the Great War. It was that honest discharge of duty, going absolutely straight, solid as a man and with no axe to grind, that marked Sir Bowen all through his long service on the County Council.

It was an agreeable piece of news to his friends in the county and all over the country when in 1911 his name appeared in the King's Honours List as having been made a baronet for his long and eminent public services. The following year Sir Bowen publicly received, through the Lord Lieutenant, the Earl of Powis, the congratulations of the county on the honour bestowed on him by His Majesty. Sir Bowen was presented with his portrait in oils, and this picture now hangs side by side with other eminent Salopians, in the Grand Jury Room at the Shire Hall.

Sir Bowen had many other activities. He was a J P and Deputy-Lieutenant for the county, and in his capacity as a magistrate was a regular attendant at the County Quarter Sessions and on the Grand Jury at the Assizes. During the days of the war he was a member of the County Appeals Tribunal, and put in many months of anxious work with the late Mr Frank Bibby, chairman, and others, in the discharge of those distressing duties. As one of the founders of both the Harper Adams Agricultural College and the Radbrook Technical School for Girls, he always took the liveliest interest in them. He was a governor of both, and at Radbrook was a frequent visitor and friend. Sir Bowen was from its start Chairman of the Governors of the Priory Secondary School, Shrewsbury, he was a governor of the Wem and Cleobury Mortimer Grammar Schools, and was one of the Walker Trustees. Another body in which he was interested was the Royal Agricultural Benevolent Institution, and when some years ago he received from his agricultural friends a handsome presentation, which included a sum of £400, he generously handed over the money to the funds of the Benevolent Institution.

Sir Bowen had over the past two or three years dropped out of many of his public duties, so that the break of his going had been gradual. He had, nevertheless, to the last been much out and about, and his familiar and picturesque figure in Shrewsbury will long be missed by those who saw him so often.

His remains were laid to rest on Tuesday, June 9th, by the side of his wife, in the family vault at Montford Churchyard. In the church are memorial windows both to Sir Bowen's wife and to her parents. A very large number of members of the County Council and representatives of public and agricultural bodies attended the funeral, including Mr. W. Bainbridge, representing Sir Gilbert Greenall, Bart., President of the Royal Agricultural Society, and Dr. Voelcker, consulting chemist to the Royal Agricultural Society.

Sir Bowen was an ideal chairman, firm but courteous, always acting with strict impartiality, and extremely anxious that every one should be given a fair hearing. He was a plodding, indefatigable worker, and he left no stone unturned that he should be master of his subject when he had any important matter to deal with. A man of distinction, he had a great charm of manner; he was naturally somewhat shy and reserved, but to his more intimate acquaintances he was a very lovable man and a staunch and loyal friend. I can think of no man in recent times who has played a more unselfish part in making the best use of his talents for the good of the general community.

In conclusion, I feel I have lost a very old and dear friend, with whom I had been intimately associated for nearly fifty years in an official capacity on many Associations in which he was a very active member. His sage advice and help were always most generously given, and I shall ever revere his memory as the best type of an English gentleman, which is the highest tribute that can be paid to any man.

ALFRED MANSELL.

HENRY SAGNIER

Henry Sagnier, the great French agricultural journalist, died on October 15th, 1925, being over eighty years of age. During the early years of his life he displayed great interest in chemistry, but his real genius for journalism soon made itself apparent, and in 1868 he was appointed secretary to the French journal, *L'Agriculture*, and in due course became editor, a post which he held for twenty-four years. In 1909 that journal was amalgamated with the *Journal d'Agriculture pratique*, and M. Sagnier held the position of editor of the combined paper up to the day of his death. Throughout his life he exhibited a very great interest in agriculture, and travelled throughout France and also visited every other country in Europe in order to secure first-hand knowledge of the various problems which confronted the agriculturists there. He was ever ready to espouse the cause

of the French farmer, and used the pages of his journal to voice the needs of the agricultural community. He was a firm believer in some form of protective tariff for agricultural produce, but was strongly opposed to State interference with farming practice. Though the task of editing the *Journal d'Agriculture pratique* made considerable calls upon his time and energy he yet found leisure for many other activities. He was a valued member of the Governing Committee of the French Association of Industry and Agriculture, and also sat for many years on the International Agricultural Commission at Paris, and was Permanent Secretary to *L'Academie d'Agriculture*, whose gold medal he was awarded in 1925 in recognition of his services. He published various agricultural works, the most important of which, *La Dictionnaire d'Agriculture*, had a very extensive circulation.

Henry Sagnier was elected an Honorary Member of the Society in March 1914.

F. M. B.

EUGENE TISSERAND

Another great French agriculturist, Eugene Tisserand, died in October 1925, at the great age of ninety-five. M. Tisserand's interest in agriculture made itself apparent at an early age, and in 1850 he entered the Agricultural Institute at Versailles, and later obtained a travelling scholarship which enabled him to spend five years visiting the chief countries in Europe in order to make a close study of the various agricultural conditions and practices. The first year of his tour, 1853, he spent in Great Britain. In 1858 he was made administrator of the State Agricultural Lands of France. A great deal of work was necessary in order to restore these lands to prosperity and to develop their hitherto unexplored resources; M. Tisserand proved himself fully equal to the task and in 1871 he was made Inspector-General of Agriculture for the Eastern Provinces. All this time his greatest interest lay in the extension of agricultural education and scientific research. He held that France's chief asset lay in her agriculture and that, especially after the *débâcle* of 1870, it was necessary to develop her resources to the utmost. From 1876-79 he was Director of the National Institute of Agriculture, which was re-started largely at his instigation, and in 1879 he became Director of Agriculture, a post for which he showed great aptitude and which he held till 1896, when he was called to the *Cour des comptes*. M. Tisserand was a prolific writer, and his books cover a wide field. He was elected an Honorary Member of the Society in 1883, at the same time as his friend and contemporary Louis Pasteur.

F. M. B.

The Control of the Hop Trade. The hop trade was the last of the industries, taken under Government supervision during the war, to be decontrolled. Control had necessarily been taken when the Government decided that in the interests of food production hops must be grubbed over large areas and food crops substituted. "The hop fields were ruthlessly sacrificed to grain production. . . . When hostilities ceased, it was found that the industry had suffered so acutely from conversion of acreage that only the closest safeguarding would effect a restoration to the normal growth. Foreign hops, therefore, had to be restricted throughout this period of contemplated nursing. The Hop Controller was a strong, silent man; no estimates were ever troubled with the cost of his administration. . . ." ¹

It is probably true to say that no controlled industry was managed with greater efficiency than the one over which Mr. G. Foster Clark presided, and the organisation which he set up, with the assistance of hop-growers and representatives of the trade, provided a lesson which was not lost upon farmers. They came to realise the value of combination for the conduct of marketing, and immediately upon decontrol growers representing no less than ninety per cent of the hop acreage of the country incorporated themselves, under the title of "*English Hop Growers, Limited*," to carry on by voluntary association the operations effected through the Hop Control for so many years. The National Farmers' Union has taken an active part in the formation of the Society, and its career will be watched with much interest.

Farming Records and Accounts. By Spicer and Pegler. Pp. viii + 132. Messrs. H. F. L. (Publishers), Ltd., London. 10s. 6d.

If it be true that farmers are bad book-keepers it is not for lack of textbooks on the subject. New books on farm accounts appear with almost clock-work regularity. In the volume under notice Messrs. Spicer and Pegler advocate a costing system, and the descriptive matter and the examples given seem adequate to enable anyone with a knowledge of the principles of double-entry book-keeping to ascertain the costs of his farming operations. On the other hand, there is nothing very new in the book, which, in fact, seems to owe a considerable unacknowledged debt to earlier publications on the same subject.

¹ *A State Trading Adventure*, F. H. Coller, C.B., p. 254.

A System of Book-keeping for Agricultural Estates. Prepared jointly by the Central Landowners' Association, the Surveyors' Institution, and the Land Agents' Society. Pp. 17. 2s. 6d.

To quote from the introduction to this pamphlet: "No attempt is made in this pamphlet to deal with the general principles of book-keeping, a knowledge of which can be obtained from the textbooks published on the subject. The aim has been to describe the simplest and most satisfactory method of recording receipts and expenditure as applied to Estate management, especially for the smaller Estates, where the work is undertaken by a small staff, or by the owner himself. Where larger staffs are available, and where it is desired to show results in greater detail (e.g., apportioning expenditure against each holding), subsidiary books may be added as required."

Skeleton forms of account with specimen entries are provided, and one of the main objects of the pamphlet is to introduce greater uniformity into the practice of estate book-keeping. It is published with high authority and can be recommended for careful study. But, whilst not forgetting that the pamphlet is intended to reach those who should be very familiar with book-keeping processes and to whom any detailed description of principles should be unnecessary, some regret may be expressed that the opportunity of this publication was not taken to treat the subject at considerably greater length. Even though this were unnecessary in the case of the practising land agent, or of the landowner directly concerned with estate management, it would have added very much to the usefulness of the work for the estate pupil and the student of land agency.

THE CHESTER SHOW, 1925.

CHESTER, where the eighty-fourth "Royal Show" took place from the 7th to the 11th July, had twice previously received visits from the national Agricultural Society. The first occasion was in 1858, and it was not until the show of that year, the twentieth of the series, that the annual event began to yield a surplus of receipts over the expenditure to the Society. The City was again visited in 1893, when there was a most successful Meeting, notwithstanding the somewhat uncertain nature of the weather during the week of the Show.

Particulars of entries, numbers of admissions and financial results of the three Chester Meetings are tabulated in the following statement.

Year	President	Implements etc. entered	Entries of Live Stock	Persons paying for Admission	Financial Result
1858	6th Earl Berners . . .	3,648	1,026	62,539	£ 1,119
1893	1st Duke of Westminster .	5,527	2,059	115,908	+ 2,404
1925	Sir Gilbert Greenall, Bart., C.V.O.	2,752*	3,922	112,880	345

* Certain Exhibits not now numbered

Cordial co-operation and assistance was rendered by the Cheshire Agricultural Society, who withheld their County Show for the year. In return, members of the Cheshire Society were accorded similar privileges to those enjoyed by members of the parent Society.

The showground at Saltney was 160 acres in extent, or one of the largest, if not the largest, ever occupied by the Society. Seventy acres sufficed for the 1893 function, and 25 acres for that held in 1858.

A special siding, adjoining the showyard, was constructed by the Great Western Railway Company, with docks, cranes, etc., for the purpose of dealing with the show traffic, and a roadway from that siding, built also by the Company, gave direct access to the showyard for stock and implements consigned by the Great Western route.

Thanks, in a great measure, to the substantial contributions received from the Chester Local Committee, and the various horse, cattle, sheep, and pig Breed Societies, the 1925 Prize Sheet was a record one. Including Champion and Special prizes, and Medals, the total value offered for competition amounted to £16,411, as compared with £15,360 at Leicester in 1924.

Another record was set up in the Cattle section, where the number of entries (exclusive of "double" entries) reached 1,565, or 18 more than at Cambridge in 1922.

For the first time at the Royal show a classification was provided for Welsh Pigs.

A Summary Statement of Entries, Classes and Prizes is given for the shows of 1893 and 1925, together with the customary comparative statement of entries in the several sections over a series of years.

Much interest was aroused by the exhibit (not for competition) of Welsh Mountain Sheep by the University College of North Wales, Bangor, for the purpose of illustrating the genetical research work being carried on at that institution.

COMPARATIVE STATEMENT OF ENTRIES, &c., AT TWO SHOWS HELD AT CHESTER IN 1893 AND 1925.

HORSES, CATTLE AND GOATS.	1893		1925		SHEEP, PIGS, POULTRY, AND PRODUCE	1893		1925	
	Classes	Entries	Classes	Entries		Classes	Entries	Classes	Entries
HORSES :—					SHEEP :—				
Prizes	—	£1,555	—	£4,448	Prizes	—	£1,105	—	£2,251
Shires	7	127	12	86	Oxford Down	4	41	5	34
Clydesdales	7	51	8	38	Shropshire	5	189	6	56
Suffolks	5	33	11	85	Southdown	4	84	6	43
Percherons	—	—	9	52	Hampshire Down	4	33	5	36
Agricultural Horses	3	12	—	—	Suffolk	4	18	6	50
Hunters—					Dorset Horn	3	12	3	6
Breeding Classes	10	133	12	96	Dorset Down	—	—	3	18
Riding Classes	—	—	7	119	Wiltshire or Western	—	—	—	—
Polo and Riding	—	—	—	—	Horn	—	—	3	13
Ponies—					Ryeland	—	—	5	39
Breeding Classes	—	—	6	37	Kerry Hill (Wales)	—	—	5	67
Hack and Riding	—	—	—	—	Lincoln	4	76	6	53
Ponies	—	—	3	25	Leicester	4	36	4	31
Arabs	—	—	1	3	Border Leicester	3	34	4	7
Cleveland Bays	2	9	—	—	Wensleydale	3	32	5	29
Coach Horses	2	12	—	—	Kent or Romney	—	—	—	—
Hackneys	7	63	4	14	Marsh	2	3	6	46
Hackney Ponies	2	20	3	10	Cotswold	4	42	3	9
Welsh Ponies	2	22	8	36	Devon	—	—	2	7
Shetland Ponies	—	—	2	12	South Devon	—	—	4	21
Children's Ponies	—	—	3	32	Louk	2	7	2	12
Driving Classes	2	27	13	92	Swaledale	—	—	4	11
Jumping	—	—	4	121	Herdwick	2	18	3	16
					Lanum Horn	—	—	—	—
Total for HORSES	49	509	106	858¹	Larimoor	—	—	—	—
					Cheviot	2	5	3	15
CATTLE :—					Blackfaced Moun-	—	—	—	—
Prizes	—	£1,917	—	£6,049 10s.	tain	2	11	2	15
Shorthorn	7	111	11	171	Welsh Mountain	4	30	6	61
Hereford	7	61	9	90	Black Welsh Moun-	—	—	2	14
Sussex	6	31	5	27	tain	—	—	—	—
Welsh	7	70	10	119	Total for SHEEP	56	631	103	711
Longhorn	—	—	4	16					
Aberdeen Angus	4	36	6	58	PIGS :—				
Dun and Belted	—	—	—	—	Prizes	—	£4 2	—	£1,841
Galloway	—	—	4	15	Large White	4	24	8	149
Galloway	4	24	4	19	Middle White	4	14	8	230
Park Cattle	—	—	2	20	Small White	4	14	—	—
Dairy Shorthorn	—	—	11	239	Tamworth	4	35	6	38
Lincolnshire Red	—	—	—	—	Berkshire	4	61	8	104
Shorthorn	—	—	7	51	Large Black	4	14	8	142
Devon	6	36	6	16	Gloucestershire Old	—	—	8	46
South Devon	—	—	5	24	Spots	—	—	—	—
Red Poll	6	31	6	104	Lincolnshire Cury	—	—	6	29
Blue Albion	—	—	6	44	Coated	—	—	6	40
British Friesian	—	—	11	207	Cumberland	—	—	8	79
Ayrshire	2	7	4	25	Wessex Saddleback	—	—	6	39
Guernsey	5	54	7	98	Essex	—	—	—	—
Jersey	6	152	7	103	Long White Lop-	—	—	4	23
Keiry	3	20	5	40	Eared	—	—	3	13
Dexter	3	19	5	70	Welsh	—	—	—	—
Dairy Cattle	4	60	4	17	Total for PIGS	24	162	79	932
Milk Yield	—	—	13	176					
Butter Test	2	30	2	105	POULTRY :—				
					Prizes	—	£262	—	£479 10s.
Total for CATTLE	72	759	154	1,704¹	Entries	94	836	106	970
GOATS :—					PRODUCE :—				
Prizes	—	—	—	£110	Prizes	—	£862	—	£643 10s.
Inspection Classes	—	—	9	56	Butter	4	225	6	87
Milk Yield	—	—	2	38	Cheese	19	568	19	412
					Cider	4	24	3	20
Total for GOATS	—	—	11	94¹	Jams	6	10	—	—
					Wool	—	—	19	93
					Hives and Honey	18	130	—	—
					Total for PRODUCE	51	957	47	612
Grand Totals for	1893	346	Classes	3,854	Entries	36,389¹	Prizes		
LIVE STOCK, POULTRY,	1925	603	Classes	5,981	Entries	116,572 10s.²	Prizes		
PRODUCE, &c.									

¹ Animals exhibited in more than one class are here counted as separate entries.

² Including £130 for Implements, £64 for Butter Making Competitions, and £32 for Horse-Shoeing Competitions.

³ Including £300 for Horticulture and £300 for Dogs.

Entries of Live Stock, Poultry and Produce.

	Chester 1925	Leices- ter, 1924	New- castle, 1923	Cam- bridge, 1922	Derby, 1921	Dar- lington, 1920	Cardiff 1919	Man- chester, 1916	Chester, 1893
Horses .	638 ¹	768 ¹	641 ¹	713 ¹	601 ¹	714 ¹	569 ¹	518 ¹	509
Cattle .	1,566 ¹	1,302 ¹	1,185 ¹	1,547 ¹	1,254 ¹	1,175 ¹	867 ¹	803 ¹	759
Goats . .	56 ¹	60 ¹	68 ¹	61 ¹	68 ¹	143 ¹	91	92	—
Sheep . .	711	633	728	715	788	739	586	607	631
Pigs . .	932	1,212	1,048	1,164	902	692	389	321	162
Total .	3,922	3,975	3,670	4,200	3,613	3,463	2,502	2,341	2,061
Poultry .	970	1,157	1,189	1,205	1,219	1,476	1,383	1,519	836
Produce .	612	300	436	247	322	475	387	565	957

¹ Exclusive of Double Entries.*Shedding in Implement Yard (in Feet).*

Description of Shedding	Chester, 1925	Leices- ter, 1924	New- castle, 1923	Cam- bridge, 1922	Derby, 1921	Dar- lington, 1920	Cardiff 1919	Man- chester, 1916	Chester, 1893
Ordinary . .	Feet 3,985	Feet 4,145	Feet 4,280	Feet 4,450	Feet 4,595	Feet 5,410	Feet 4,540	Feet 3,300	Feet 8,610
Machinery . .	3,380	3,685	4,230	4,240	5,660	5,710	4,200	1,290	2,211
Special . . . (Beds, Models, etc.)	3,575	3,867	3,392	3,501	3,835	3,374	2,469	2,480	2,197
Total . . . (Exclusive of open ground space)	10,940	11,097	11,902	12,191	13,990	14,494	11,209	7,070	13,018
No. of Stands .	438	455	453	494	508	471	371	239	408

The Poultry section, where the entries were not quite so numerous as in recent years, was open to the public from the Wednesday to the Saturday.

In the Produce department, the classification for Cheshire Cheese was considerably extended, the cash prizes being generously supplemented by grants from the Local Committee and the Cheshire Cheese Federation. In addition, the Cheshire Hunt provided two Champion Cups of the value of 100 guineas and 50 guineas respectively, with prizes of ten guineas and five guineas for the "reserve" champions. Competition for these cups was open to occupiers residing within the limits of the country hunted over by the Cheshire Hounds. Of the 412 entries in the Cheese section, 293 were in the classes for "Cheshires," and a most excellent exhibition they made.

Increased classification was provided for both competitive and non-competitive exhibits in the Horticultural section, and the display here surpassed even the splendid Flower shows seen

in the "Royal" showyard on former occasions. Near the marquees of the Flower show, Messrs. Dicksons Nurseries, Ltd., laid out for the Society a half-acre plot demonstrating a practical scheme of fruit-tree planting likely to appeal to farmers and to smallholders.

The Cheshire County Council was responsible for another demonstration plot on such matters as grass mixtures, the treatment of pastures, the manuring of potatoes, and the destruction of charlock. Ancient and modern cheese-making equipment was also shown under the auspices of the Council, together with exhibits illustrative of the work of the Reaseheath School of Agriculture.

Recent research on Virus Diseases of Potatoes was illustrated at the stand of the University College of North Wales, Bangor.

Methods of producing "Clean Milk" were demonstrated daily by the staff of the National Institute for Research in Dairying.

Many exhibitors in the Implement section were supplied free of charge with electric power to drive their exhibits by the Electricity Committee of the Chester City Corporation. The Committee also staged in a large marquee a most interesting demonstration of the use and application of electric power for agricultural and domestic purposes.

Horse Shoeing Competitions were again a source of interest to many show visitors.

On the Thursday and Friday, a Champion Hip Dog Show took place in the showyard. Challenge Certificates were granted for most breeds by the Kennel Club.

The rain that fell overnight before the opening of the show was the first in the district for about six weeks. By ten o'clock on the Tuesday morning, the rain had been followed by sunshine, which continued throughout most of the day, and the ground quickly dried. On the whole, judging was got through under very favourable conditions.

There were many visitors from the Continent and the Overseas Dominions present on the opening day, including a party of farmers from South Africa, who were then making a tour of the country and who were received by the President, Sir Gilbert Greenall also attended their luncheon and addressed them.

Fine weather continued on the Wednesday, when the show was honoured by a visit from the Society's Royal Patron, H.M. the King arrived at Knowsley on the previous evening, where he was the guest of the Earl and Countess of Derby. On the Wednesday morning, with members of the house party, His Majesty motored to Chester, and, on arrival there about noon, he left the car for an open carriage, in which he drove to the Royal Pavilion in the showyard. Here His Majesty was received by Sir Gilbert Greenall as President of the Society. The Working

Dairy was first visited and then the Cheese section, where Mr. Rowe Morris, Chairman of the Cheshire Cheese Federation, asked His Majesty's acceptance of a cheese from the exhibit by Mr. Charles E. Parton, of Haughton Hall Farm, Tarporley, who gained the Cheshire Hunt Champion Cup, value 100 guineas. The exhibitor and Mrs. Parton were afterwards presented to His Majesty.

After luncheon in the Royal Pavilion, the King made an extensive tour of the Show, during which he visited the pavilion of the Ministry of Agriculture and Fisheries, where he received a gift of a Dee salmon. A number of stands in the Implement Yard were visited, including that of the Oxford Institute of Agricultural Engineering, where a demonstration of artificial Crop Drying by the new implement patented there was in progress. Going on to the Cattle section, where animals had been specially parked, the Royal carriage was stopped for the King to see his own Red Poll Champion bull "Royal Crimson." Later, from the Royal box in the grand-stand, His Majesty watched a display of horse-jumping over the course in the large ring. After a visit occupying some five hours, His Majesty took tea in the Royal Pavilion and returned to Knowsley at 5.15 p.m.

The Royal Pavilion was then opened to the public for the rest of the week. Visitors were asked to place a donation in the collecting box at the door for the benefit of the Chester Royal Infirmary.

Brilliant sunshine continued on the Thursday, which brought the largest attendance of the week. Among the visitors was a party of between fifty and sixty farmers from Denmark. The Society's General Meeting of Governors and Members took place in the Large Tent at noon, and an item of special interest in the proceedings was the presentation by Major Robert Barbour (High Sheriff of Cheshire) of the Champion Cups for Cheshire Cheese. Resolutions were passed by the Governors and Members present cordially thanking the Mayor and Corporation for their hospitable reception of the Society, and also the Local Committee for all they had done to promote the success of the Show. The Hon. Director announced at this meeting that he would continue in that capacity as long as he was able and the Society so desired, although he would be ready to relinquish the office if and when a younger man came along.

On the night of Thursday rain again fell, but it stopped before the reopening of the Show and fine weather continued throughout the Friday and the Saturday. On the last day the exhibition was visited by several thousands of children from the schools in Chester and the surrounding neighbourhood.

The tables which follow show the numbers of admissions by payment at various hours on the several days at Chester,

and also the total admissions at Chester in 1925, compared with the previous six shows and that at Chester in 1893.

Admissions by Payment at Chester, 1925.

Day of Show	11 a.m.	1 p.m.	3 p.m.	5 p.m.	Day's total
Tuesday (10s.) . .	1,183	2,700	3,212	3,335	3,352
Wednesday (5s.) (after 2 p.m., 3s.)	6,534	16,220	25,445	27,005	27,215
Thursday (3s.) . .	14,597	33,551	41,654	43,726	43,981
Friday (3s.) . .	8,111	15,408	19,190	20,559	20,682
Saturday (2s.) . .	4,357	8,851	14,096	17,375	17,650
Total for Show. .					112,880

Total Admissions at Chester in 1925, compared with previous six Shows and Chester, 1893.

Day of Show	Chester, 1925	Letchester, 1924	Newcastle, 1923	Cambridge, 1922	Derby, 1921	Darlington, 1920	Cardiff, 1919	Chester, 1893
First . . .	3,352	2,273	3,587	3,318	3,791	11,397	8,466	2,397
Second . . .	27,215	16,204	37,926	21,880	33,970	51,111	45,006	20,959
Third . . .	43,981	35,747	63,183	31,003	33,931	52,611	68,838	19,034
Fourth . . .	20,682	14,845	42,457	21,408	31,777	40,389	36,292	59,555
Fifth . . .	17,650	16,862	39,357	13,823	22,350	27,001	33,002	13,664
	112,880	85,531	186,510	92,352	125,828	182,892	191,694	115,908 ¹

¹ Including 299 on preliminary "Implement" Day.

The Society is indebted to the officials and Executive Committee of the Chester Local Committee for all the arrangements made for the reception of the Show.

Neither trouble nor expense had been spared in the preparation of the ground. Every one had worked hard, and the Local Fund collected to meet the expenses of this Committee was, I understand, a record one.

Sir Gilbert Greenall, the President, was also Chairman of the Executive Committee, and was instrumental, not only in obtaining funds for the Committee, but in saving expenditure upon the site owing to his knowledge and experience of Royal showyards.

A concession greatly appreciated by members attending the Show was the restoration to them of the pre-war privilege of travelling to Chester at the reduced rate of single fare and a third for the return journey.

For general "smooth working" I think it can be said that the Chester Show has never been equalled. It has certainly not been surpassed.

T. B. TURNER.

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London, W.C.1.

REPORT ON THE TRIALS OF SUGAR-BEET ROOT LIFTERS HELD AT NEWARK ON OCTOBER 13, 1925.

For many years, the trials of agricultural implements have formed one of the activities of the Royal Agricultural Society. The Great War put a stop to them for a time, but in 1920 trials of Motor Tractors and Ploughs were organised and early in 1924 the Implement Committee recommended that trials should be held for Sugar-Beet Lifting Machines. The past few years have seen rapid strides in the introduction of sugar-beet as a rotation crop in our arable districts. Great impetus has been given to this development by the Sugar Beet Subsidy Act of 1925. By the end of this year, ten modern Beet Sugar factories were in operation dealing with the crop from approximately 60,000 acres. As the new factories are tuned up to concert pitch, they will be able to deal annually with 10,000 or 12,000 acres of sugar-beet apiece, while a number of additional factories are projected which will greatly increase the demand for this crop.

The principal obstacle which the farmer finds in introducing sugar-beet into his system of cultivation is the difficulty of lifting the roots. The sugar-beet is a root of deep growth, which can only be pulled by hand in the very lightest soils. Experience has shown that any portion of the root which is above the surface is not only deficient in sugar content, but contains acids which are undesirable in the manufacture of sugar. On this account, the sugar factories require the whole of the crowns to be removed before the roots are delivered. The labour involved in these two processes of lifting a deeply embedded root, and cutting off the crown, is considerable. Many farmers have been deterred from sugar-beet cultivation on an extensive scale owing to the difficulty of finding sufficient seasonal labour for this purpose.

With these considerations in mind, the Implement Committee realised the importance of encouraging the invention and manufacture of labour-saving machines to meet the sugar-beet growers' requirements, and obtained the support of the Council for trials to be held in October, 1925.

Entries were invited for two classes :—

1. For machines which top and lift the roots, and separate them from the leaves and crowns.

2. For machines which loosen the roots, leaving them to be subsequently lifted and topped by hand.

For Class 1, prizes of £50 and £20 were offered, and for Class 2 prizes of £20 and £10.

The following points were laid down, to which the special attention of the Judges would be directed :—

1. Price.
2. Simplicity in design and working.
3. Draught.
4. Ease of handling.
5. Ease in turning.
6. Efficiency in lifting or loosening the roots.
7. Freedom from damaging roots.
8. Effective separation of leaves and crowns from root.
9. Facilities of subsequent collection of crop.
10. Time occupied in execution of work.

It was decided to limit the entries to British-made machines, in anticipation that British manufacturers would study the various types of sugar-beet lifting machines employed abroad, and would either design improved machines of their own, or arrange to manufacture foreign patents on licence. Events proved that this anticipation was not justified. Only one entry was received for Class 1, and this machine proved to be crude and inefficient. It is a matter for regret, in view of the rapid growth of sugar-beet cultivation in this country, that British manufacturers have not seen their way to produce efficient lifting and topping machines.

Class 2 attracted seven entries, including a cable-drawn lifter which takes six rows simultaneously, and six pair-horse machines, including side and centre lifters, each dealing with a single row.

Arrangements were made with Home Grown Sugar, Limited, for the trials to take place on the Kelham Estate, near Newark. The Estate Manager, Mr. S. Colyer, and Mr. Tracy P. Fowler, Manager of the Cantley Factory of the English Beet Sugar Corporation, Limited, were nominated as Judges. Admirable arrangements for the trials were made by Mr. Colyer, who also provided seven pairs of draught horses, accustomed to work of the kind required, for use with the horse-drawn machines. It was arranged that all the machines entered should be tested on both light and heavy soil. The trials were held on October 13. Colonel E. W. Stanyforth, Chairman of the Implement Committee; Sir George Courthope, Steward of Implements; Mr. T. B. Turner, the Secretary; and Mr. F. S. Courtney, the Consulting Engineer, were present to conduct the trials.

In spite of most unpleasant weather, there was a large

attendance of farmers and other interested people, including a party of prominent Dutch farmers and the Professor of Agricultural Machinery at the University of Holland, who had come to England for the purpose.

As has already been stated, the only machine entered in Class 1 failed to satisfy the Judges, and no award was made in this class. Instead of cutting the crown cleanly from the root, this machine tore many of the roots. This was probably due to the fact that the topping blade was fixed too close to the lifter, with the result that the latter had loosened the root in the soil before the former had cut off the crown. Continental experience suggests that the topping blade must not be rigidly fixed to the frame or beam of the lifting machine, but should be carried on a spring, or flexible attachment, so adjusted that the blade moves evenly above the surface of the ground.

The problem of topping the roots mechanically at the same time as they are lifted, presents many difficulties, if it is intended to use the tops and crowns for feeding. On the Continent, considerable importance is attached to the feeding value of the tops, which are used both as green feed and as ensilage. In the latter case, they are frequently packed into the silo pits in alternate layers with wet pulp from the sugar factories. The ensilage produced has considerable feeding value, but is not likely to become popular in this country, owing to its strong and unpleasant smell, with which many of us became acquainted in Flanders during the war.

In Holland the experiment is being tried of harvesting the tops and crowns before the roots, so that the former can be removed as free from dirt as possible. In this country it is usual to plough in the tops and crowns as green manure. Wherever this practice prevails, it is obviously more important to save time and labour in the lifting of the crop than it is to keep the tops and crowns free from dirt. It would seem, therefore, that there is a real opening in England for a machine which will top and lift the roots in a single operation. It is hoped that the skill and enterprise of British machinery manufacturers will produce a satisfactory implement for this purpose.

With regard to Class 2, several of the lifting machines competing did their work well, loosening the roots without displacing them unduly or covering them with loose soil. This is an important point in view of the subsequent operation of topping, which is usually carried out as follows.—One man draws the loosened roots from the ground, holding one in each hand, beating them together to remove loose earth, and placing them in small heaps ready to be topped by a second man, who follows with a heavy knife, with which he chops off the whole crown of

the roots, leaving the tops and crowns on one side of him—his right, if he is right-handed—and throwing the roots into heaps on the other side, i.e., his left.

By working up one row and back down the next, he leaves the roots from two rows in a single line of heaps, thus facilitating the loading into carts.

At the commencement of the Trials, the Judges expressed the opinion that the cable-drawn machine, entered by Messrs. John Fowler & Co. of Leeds, should not be judged in competition with the horse-drawn machines. After consultation between Colonel Stanyforth and the Steward, it was decided that a Special Prize might be awarded to the cable-drawn lifter, in the event of the Judges recommending an award. This machine did excellent work on medium and light soil, loosening six rows of roots simultaneously without unduly disturbing the surface, or moving the roots from their position. On heavy soil, while loosening all the roots, it disturbed the ground considerably, leaving a rough surface which would add somewhat to the cost of carting off the beet crop. Its working cost is estimated at 15s. to £1 per acre inclusive, which exceeds that of the horse-drawn lifters by probably 50 per cent. On the other hand, it possesses the great advantage of saving time and labour materially, and by raising and loosening the soil to a depth of over one foot, it reduces the cultural operations required for the following crop. The Judges recommended this machine as being deserving of a first prize, and a special prize of £20 was, therefore, awarded to Messrs. John Fowler & Co.

Of the horse-drawn machines, the side lifters showed distinct superiority over the centre lifters, both on light and heavy soil. The centre lifters are apt to become blocked with the tops of the beet, and to break and drag the roots together, thus rendering the subsequent topping operations more difficult.

After all the machines had been demonstrated by the firms entering them, three side-lifting machines were selected by the Judges, and were further tested by being drawn by the same pair of horses and driven by Mr. Colyer personally, and his Foreman. This test was repeated on both light and heavy soil.

On the recommendation of the Judges, the first prize was awarded to Messrs. John Cooke & Sons' side-lifting machine. This machine, of which the price is £5 15s., did excellent work, was light in draught, and was easy to handle.

The second prize was awarded to Messrs. G. Stephenson & Sons' side-lifting machine, the price of which is £4 15s. In this machine, the cutting and shelving surfaces, and the consequent friction, are reduced to a minimum. It loosens the root effectively without disturbing its position, or unduly moving the soil. In this respect, it performed even better work than the

machine to which the first prize was awarded, but it is not nearly so easy to manipulate, owing probably to the fact that it is fitted with only one leading wheel instead of two, as in the case of the other machines. On this account it was not awarded first place. It was the lowest priced machine entered in the trials, and is well within the reach of the smallest grower.

The reserve position was awarded to Messrs. J. & F. Howard's side-lifting machine. This machine, which is priced at £7, is a well-made two-wheeled machine, but is inferior to the first and second prize-winners in draught, quality of work, and price. In heavy soil, too much disturbance of the surface takes place, and the draught increases considerably. This is probably due to the fact that the share, or side attachment, which comes in contact with and loosens the beet roots, is unnecessarily large.

The trials attracted a good deal of notice, and, although the entry in Class 1 was most disappointing, there is little doubt that a useful purpose has been served, which will more than justify the trouble and expense incurred by the Royal Agricultural Society.

G. L. C.

AGRICULTURAL MACHINERY AT THE CHESTER SHOW, 1925

THE exhibition of agricultural machinery at the Chester Show demonstrated the capacity of manufacturers to improve existing farm implements and mechanical methods and to make use of the sources of power now available to industry. We do not always realize what a place the internal combustion engine has in agriculture and it needs such an assemblage of power-driven machinery as that at Chester to bring home to us what the internal combustion engine now does for us and what more it may do. A very large proportion indeed of the stands shewed one or more small petrol engines installed, coupled up to lighting sets or driving stationary machinery or doing other useful work: elsewhere, of course, tractors were in evidence. There are now few departments of farming in which there is no place for the internal combustion engine, and there is no evidence that the limits of its usefulness have yet been reached. How wide those limits may be is suggested by the railway centenary which was celebrated this year: in another seventy years or so our descendants may be celebrating the centenary of the petrol engine and pointing to achievements greater even than those of steam.

But a very ancient form of power is again claiming attention. Windmills after falling into disrepute are now finding favour

with designers who claim that in windmills built upon new models an efficient source of power may be found. Such claims cannot be adequately judged or tested under the conditions of a Show : a test demands long and patient measurements and a wide consideration of alternative sources of power. One windmill, the "*Aggrico*" Windmill Plant, was entered for the Society's medal, and although it did not receive an award some detailed account of it is desirable.

The "*Aggrico*" Windmill Plant (Young, Osmond and Young, Ltd., Stafford House, Norfolk Street, Strand, London, W.C.2) is designed for ready adaptation to either pumping or the generation of electricity. It has several quite novel features, the streamlining of the blades and the methods of regulation being prominent.

The structural part of the plant consists of a lattice-built steel tower, 55 feet high, and is of sound construction throughout. An ample wooden platform, surrounding the tower about 12 feet from the top, facilitates any work on the headpiece or the windwheel, and is reached by a steel ladder, carried up the framework of the tower.

The heaviest single piece in the plant is the headpiece, which weighs about 1,400 lb. and has to carry the rudder mechanism and the governing gear, as well as the windwheel itself. This headpiece is of girder construction, carrying at one end the main shaft and governing gear, and at the other the rudder gear and a concrete block as balance weight. At the centre is the bevel gearing to the transmission shaft. With a suitable block and tackle, however, the headpiece can be raised into position by six or eight men in a very short time : all the other constructional work can be done by two or three men.

The blades of the "*Aggrico*" mill are hollow, the covering being of thin galvanized metal, and are streamlined in cross-section. The end of each blade, however, is cut squarely off and has fixed to it a sheet-metal stamping, of the same shape as the cross-section of the blade, but overlapping all round. This device is intended by the designers to prevent loss of power due to air escaping at the ends, before imparting its maximum energy to the blades. These blades are made in standard sizes, and the power required from any mill is obtained by fitting the requisite number of blades. The 5 k-w size is fitted with five blades, the diameter of the wheel being 22 ft. The wheel, after the blades have been mounted separately, is braced by tie-rods from blade tip to blade-tip and from the blade-tips to a projection of the main shaft.

The methods of governing and regulating the output are novel. Fixed to each blade and running lengthwise inside it is a steel tube or spine. Inside this spine is a spindle, which is fixed at one end to the main shaft and at the other bears on the extremity of the

spine, where a ball-bearing is fitted. Thus, while the wheel is turning in a vertical plane, each blade is free to turn on a radial axis. Round the spine and at its inner end is fitted a pinion which engages on a rack in a bush, which slides on the main shaft. As this rack is moved out or in it turns the spine, and with it the blade, until the desired position is reached. The regulation is controlled from the foot of the tower by means of a lever, which operates the rack through a rod and crank arrangement. By this means can be obtained any position of the blades from a point where the maximum advantage is taken of the wind to a position where the edge of the blades is presented to the wind and there is therefore no rotation.

The blades are so proportioned, that the pressure of the wind tends to turn them on their own axes. This turning tends to move forward the rack, and, by hanging a weight on the lever, this movement is prevented until the wind is high enough to raise the weight. Thus, by hanging different weights on the lever, any degree of automatic governing is obtained and the blades will turn out of the wind at any predetermined load on the machine.

Another feature to which attention may be drawn is the method of keeping the wheel in the wind, an object usually attained by means of a rudder-vane or tail. Mounted on the rear end of the headpiece, and in two parallel vertical planes, at right angles to the plane of the main wind-wheel, are two small five-bladed windmills. These are connected together and drive, through gearing, a worm, which engages in a fixed toothed ring on the main framework. As these windmills work they gradually pull round the whole headpiece, until the rudder mills are out of the wind and the main wheel fully in it. Suspended from the headpiece and rotating with it is a steel ladder, which permits of easy access from the platform to the gearing and the mechanism on the head.

A generator is situated at the base of the tower, on a concrete foundation; the bottom section of the framework is built in to form a hut which will house the generating plant and the storage batteries. Transmission from the wheel is by a vertical steel shaft. There is a bevel gearing at each end of the shaft, and a set of spur gearing to the generator. The triple reduction gearing gives a ratio of 25 : 1, the generator running at 650-1300 R.P.M. The vertical shaft is steadied at intervals, by means of wooden guide blocks.

This plant, especially in regard to electrical features, has much to commend it in regard to the accessibility of all parts needing attention.

The most novel of all the implements submitted to the judges for the Society's medal was the *Crop Drying Plant* manufactured by the Geo. H. Gascoigne Co. of Reading. Again it should be

emphasized that the conditions of a Show do not enable the judges to test the economic possibilities of an implement, but there can be no question that a plant on these lines will successfully dry crops and that a device of this kind (assuming that the expense is moderate) is much needed to deal with hay and corn crops in districts where the rainfall tends to interfere with natural harvesting. It is not too much to say that if it were found economical to adopt this system generally, there would be little short of a revolution in agriculture in this country and other parts of Europe, for the farmer would be to a large extent independent of the weather in the most critical period of the year. This implement was considered worthy of the award of the Society's medal.

Another implement to which a medal was awarded, also connected with hay harvesting, was the extremely ingenious device submitted by Blackstone and Co. of Stamford for an *Improved Drive for Grass Mowers*. This device the judges were able to test in a small way during the early morning in a neighbouring field. The essential feature of this device is that power is transmitted by a straight drive from the travelling wheels of the mower to the finger board, thus eliminating the connecting rod and bevel wheels which provide a constant source of weakness in other types of machine. If this system is proved to be successful in practice, there seems no reason why it should not be applied to mowing attachments to tractors and to binders.

Equally noteworthy was the *Power-Driven Binder* submitted by the International Harvester Co. of Great Britain, Ltd., 80, Finsbury Pavement, London, E.C.2, which also was awarded a medal. The essential feature of this device is that the power is applied direct from the tractor to the binder, instead of using the tractor as a substitute for a team of horses to haul the binder. The binder runs at a steady equal speed which is not altered in any way by the speed at which the tractor travels. Another distinct advantage is that the clutch can be taken out whenever the machine chokes and the load on the canvas cleared automatically.

Birtwistle and Co. of Northwich submitted a *Manure Distributor* to which also it was possible to give a short trial. It distributed artificial dressings very evenly in small quantities, and it contains an excellent feature in the extreme accessibility of the distributing gear for cleaning, since the whole can be removed in a few moments without trouble. This machine well deserved the medal awarded.

The *Mole Draining Hand Apparatus* submitted by John Fowler and Co., Ltd., of Leeds, attracted a great deal of attention. This device is an ingenious combination of the mole drain and tile drain. A mole is first drawn in the usual way and pits cut at intervals. In these pits a hand-power ram is introduced for the

purpose of inserting pipes in the mole. The leading pipe is fitted with a removable torpedo-shaped nose to clear any possible obstruction and to avoid clogging. There can be no question of the ingenuity of this implement; but it should be noted that only a comparative field test could determine what economic advantage this system possesses over others. It appears obvious, however, that as compared with the heavy expense to-day of cutting trenches and pipe laying, a system which employs mole-drains must be substantially cheaper.

The judges had no hesitation in awarding for this implement one of the Society's medals.

It will be thus seen that five medals were awarded. This was an unusually large number, but the entries were of unusual interest. The medals were awarded only to implements embodying absolutely new ideas. It does not follow that those to which no medal was awarded did not possess very considerable merits: but they did not in the judges' opinion possess the high qualification entitling them to an award.

Special mention has already been made of the Power Wind Plant submitted by Young, Osmond & Young, to which the judges would have been inclined to make an award had it been more distinctly agricultural in character. Attention may be drawn also to the Potato Digger, submitted by John Wallace & Sons, Ltd., of Glasgow; here the novel feature was a device for cleaning and removing the spuds on the wheels. This device might well be applied to other land machinery where spuds are needed. E. H. Bentall and Co., Ltd., of Maldon, submitted an *Ensilage Cutter* which was well adapted for ensilage as grown in this country, and avoided the tendency to pulping shewn by some machines from overseas: this machine can also be adapted for cutting chaff. Both Martin's Cultivator Co., Ltd., and Bamfords Ltd. submitted implements on the same lines which combined the *Swath Turner and Side Delivery Rake*: both were excellent, but they were regarded rather as improvements on existing machines than essentially new implements. Otherwise the judges would have found difficulty in refusing them an award. A highly ingenious and efficient *Trailer* was exhibited by the Eagle Engineering Co., Ltd., of Warwick: the mechanical device for tipping and disposing of the load was admirable, but it was rather a contractor's than a farmer's implement. A *Petrol Engine* submitted by R. A. Lister & Co., Ltd., of Dursley, was remarkably cheap and efficient and would admirably serve the purposes of many farmers, but not being specifically agricultural and not being essentially new it was not awarded a medal. The last implement entered to which reference should be made is the Cream Separator exhibited by the Melotte Separator Sales Co., Ltd., of Bristol. This separator reaches a high level of efficiency: it is simple and far less

complicated than earlier designs and is consequently very easy to clean.

In reviewing the exhibits and awards made, it is difficult for a judge not to feel that some more searching test of new implements is desirable than that which is possible in the conditions of a show. However wide the experience of the judge and however ingenious he may be in devising partial tests, he cannot collect the data which would enable him to say that an implement to which an award is made will meet, more adequately than existing implements, the practical needs of the farmer. It would be interesting to know how many new implements awarded medals in past years have established themselves in agricultural practice. It is to be feared that the percentage would not be very high. Nothing like a 100 per cent. is to be expected under any system. But a practical and comparative test of all competing implements which pass a preliminary examination should be possible to devise, and the Society's awards would then possess an even higher value than they have to-day.

THOMPSON CLOSE.

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REPORT OF THE STEWARD OF DAIRYING, CHESTER SHOW, 1925.

MILK YIELD TRIALS

(CATTLE, CLASSES 241-253).

OUT of a record entry of 176 for the milk yield trials at Chester 124 cows were present, all with one exception going through the trials, the one cow being certified by the Society's Veterinary Inspector as too unwell to compete.

The cattle were milked out on Wednesday evening, July 8, the milk of the next 24 hours being taken for the trials.

Samples of milk were taken both morning and evening to ascertain the percentage of fat.

Out of the 123 animals 30 gave milk showing less than 3 per cent. fat on the average of the two milkings, while 31 would have been disqualified in addition to the 30 had the disqualification been enforced on each separate milking.

The numbers and breeds of the cows who gave milk showing less than 3 per cent. on the average of the two milkings are as follows :—

5 Shorthorns	out of 18 tested.
2 Lincoln Red Shorthorns	" 9 "
2 Red Poll	" 10 "
1 Blue Albion	" 4 "
18 British Friesians	" 26 "
1 Ayrshire	" 5 "
1 Dexter	" 11 "
<hr/> 30	<hr/> 83

Had the disqualification been enforced on each separate milking the numbers would have been more than double, as, omitting the cattle named above, 31 cows gave milk in the morning showing less than 3 per cent. fat although the deficiency in all these cases was made up by the good quality of the evening's milk. The breeds and numbers are as follows :—

8 Shorthorns.
7 Lincoln Red Shorthorns.
1 South Devon.
2 Red Polls.
4 British Friesians.
3 Ayrshire.
1 Guernsey.
1 Jersey.
3 Kewries.
1 Dexter.
<hr/> 31 in all.

Last year at Leicester the numbers disqualified were 43 out of 83; this year with the increased entries, 61 out of 123 tested showed a deficiency of fat at one of the two milkings.

The full report of the trials with the awards in each class is given in Table I, while the average figures of each breed are shown in Table II.

The Champion Prizes were awarded as below :—

A.—For Cows of the Dairy Shorthorn, Lincolnshire Red Shorthorn, Devon, South Devon, Red Poll, Blue Albion and British Friesian Breeds.

Champion Prize, £30.—1767 Bortram Parkinson's British Friesian, **Thurston Karels Emily.**

Reserve Number, £5.—1772 Friend Sykes' British Friesian, **Kingswood Ceres Daisy.**

B.—For Cows of the Ayrshire, Guernsey and Jersey Breeds.

Champion Prize, £20.—2037 F. B. Imbert-Torry's Jersey, **Blue Hayes Sporrán.**

Reserve Number, £5.—2031 Mrs. Evelyn's Jersey, **Fairlawne Hussy.**

C.—For Cows of the Kerry and Dexter Breeds.

Champion Prize, £10.—2111 Kerry Estates Ltd. Kerry, **Valencia Eileen 8rd.**

Reserve Number, £5.—2108 Elmhurst Farming and Trading Co.'s Kerry, **Flora of Carton.**

Special Jersey Prize of £10 10s., given by the Royal Jersey

TABLE I—MILK-YIELD CLASSES AT CHESTER, 1925

No. in Catalogue	Exhibitor	Name of cow	Live weight	Date of birth	Date of last calf	No. of calves in milk	Date of service	Total milk yield in 24 hours	Fat per cent age	Milk	Fat per cent. x 4	Fonds		Awards and Remarks	
												Lacta- tion	Total		
Class 241															
1317	Sir Wm Hocking Bart	Darry Short-horns Lizzie Wild Eyes 2nd	Lb 1,04	Mar 21, 1916	1925	50	1925	Lb 33 4	3.35	53.25	13.40	1.0	67.65	H C	
1324	Vaunce & Ashton	Praute Pandora	1687	Oct 3 1917	May 26	44	—	69	3	69.50	14.00	0.40	83.90	First Prize, £15.	
1326	J Pierpont Morgan	Hedcock Churning La 9th	1512	June 3 1914	June 10	20	—	97	4	392.0	15.68	—	72.93	H C	
1327	J Pierpont Morgan	Kilnwick Lady 2nd	1407	Apr 12 1917	Apr 30	70	—	39	0	360	33.00	14.40	3.00	56.40	H C
1329	Lt Col B. Mostyn Owen	Daylamm 3rd	1393	Apr 4 1914	June 8	31	—	58	8	38.50	12.40	—	70.90	H C	
1386	Duke of Westminster	Dinah W m	1344	Dec 18 1915	June 15	24	—	56	12	37.2	14.98	—	71.63	H C	
1388	Carl A S Wills	Thoraby Foggathorpe 2nd	1442	Sept 11 1914	June 6	33	—	64	1	390.64	15.60	—	80.35	Third Prize, £5	
1389	Carl A S Wills	Thoraby Foggathorpe 1th	1346	June 3 1917	June 12	22	—	63	17	63.75	14.68	—	78.43	Fifth Prize, £3	
1348	Mrs L W Fitz Hugh	Rosette Prim 4th	1575	Feb 1 1919	June 1	22	—	64	0	427.64	17.08	—	81.08	Second Prize, £10	
1349	G P Golden	Lady Dorcen 4th	1547	Feb 5 1920	June 6	33	—	68	4	236.65	9.40	—	77.73	Fat below Standard	
1350	G W Golden	Clara s Beauty 2nd	1309	Jan 12 1920	June 1	38	—	47	12	55.45	12.40	—	70.33	Fat below Standard	
1355	J Pierpont Morgan	Richerscotte Foggathorpe	1400	Jan 13 1920	May 28	42	—	66	12	62.65	11.80	0.20	78.75	Fat below Standard	
1358	Major S P Yates	Sorbrook Foggathorpe	1386	Jan 25 1920	May 28	42	—	66	10	57.63	12.08	0.20	79.03	Fat below Standard	
1360	Major S P Yates	Crook Foggathorpe 2nd	1340	Jan 26 1921	May 28	42	—	46	0	402	12.08	—	58.03	H C	
1367	R O Hermon	Princess Benedict 17th	1502	Jul 28 1921	June 6	33	—	41	17	360.41	14.40	—	56.13	—	
1375	H P Mortimer	Chalfield Daifodil 7th	1218	Apr 18 1922	Mar 15	116	—	40	12	242.40	9.68	—	58.03	Fat below Standard	
1390	Major R F Fuller	Anderson Bianca 6th	1295	Jun 31 1922	June 4	35	—	45	0	215	43.00	8.60	—	53.60	Fat below Standard
Class 242															
Non Pedigree Dairy Shorthorns															
1422	H A Brown	Isabelle	1,572	Feb 18 1918	June 11	28	—	61	0	425	61.00	17.00	—	78.00	First Prize, £15
1423	H P Mortimer	Lady Graceful	1477	—	June 21	18	—	51	1	337	51.0	13.55	—	67.63	Second Prize, £10
Class 243															
Lincolnshire Red Shorthorns															
1438	John Evans & Son	Burton Opat 2nd	1617	Mar 10 1920	May 28	42	—	69	4	310	69.25	12.40	0.20	81.95	First Prize, £15
1444	B G Bowser	Southern Tower	1507	Oct 6 1918	May 9	61	—	54	8	567	54.25	14.68	2.10	71.28	Fourth Prize, £4
1445	B G Bowser	Southern Sunset	1526	Apr 25 1921	May 31	38	—	12	2	257	10.60	—	82.43	Fat below Standard.	
1446	Chivers & Sons Ltd	Sharnford Lady	1631	Apr 21 1921	May 12	67	—	71	4	257	13.40	—	82.93	Fat below Standard.	
1447	Robert J Clark	Sharnford Lady	1441	Oct 21 1921	June 15	24	—	41	4	360	41.25	14.40	—	78.40	Second Prize, £10
1448	John Evans & Son	Burton Cherry 4th	1439	Mar 23 1917	June 18	21	—	61	0	893	61.00	12.40	—	78.40	Second Prize, £10
1449	John Evans & Son	Burton Filippal 6th	168	March 2, 1918	June 15	21	—	5	4	310	51.25	12.40	—	65.33	H C
1451	Lt Col Sir A G Weagall	Foston 6th	1363	Oct 18 1921	Apr 15	85	—	49	4	337	49.25	13.48	4.70	67.23	H C
1452	Lt Col Sir A G Weagall	Langford Polly 6th	1428	Sept., 1914	May 28	42	—	61	0	355	61.00	14.20	0.20	75.40	Third Prize, £5
Class 245															
South Devon															
1503	Walter Hunt	Milkmaid 9th	1582	Sept 2 1916	Apr 13	87	June 20 1916	0	4.12	43.00	16.48	4.70	66.18	First Prize £15	
1504	Walter Hunt	Milkmaid 10th	1820	Aug 2 1917	Mar 2	129	May 29 1917	8	4.15	40.50	16.60	8.90	66.00	Second Prize £10	

TABLE I—MILK-YIELD CLASSES AT CHESTER, 1925—continued.

No. in Catalogue	Exhibitor	Name of cow	Live weight	Date of birth	Date of last cal	No. of years in class	Rate of lactation per cent	Total milk	Fat per cent	Lactation	Awards and Remarks
Points											
Class 24b		<i>R. I. P. Hs</i>									
1554	Co-operative Wildlife Sales Society, Ltd.	Herontine, Beryl	Lb	Feb 10 1919	Apr 10 1920	1	30	41	3	1.80	50 60
1556		Wrenham Sage	Lb	Apr 1 1919	Apr 13 1920	8	30	41	3	1.80	50 60
1557		Lincoln Road	Lb	Oct 16 1919	Apr 29 1920	3	30	44	3	1.80	50 60
1558		White Hill Blue Delle	Lb	Oct 16 1919	June 2 1920	3	30	44	3	1.80	50 60
1559		White Hill Blue Delle	Lb	Oct 16 1919	June 2 1920	3	30	44	3	1.80	50 60
1560		White Hill Blue Delle	Lb	Oct 16 1919	June 2 1920	3	30	44	3	1.80	50 60
1561		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1562		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1563		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1564		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1565		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1566		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1567		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1568		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1569		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
1570		Major J. A. Morris	Lb	Apr 10 1919	June 21 1920	18	30	44	3	1.80	50 60
Class 24c		<i>Blue Albions</i>									
1640	Mr. Col. W. E. Harrington	Cliftonthorpe Royal	Lb	June 22 1918	June 22 1919	17	30	45	3	1.80	50 60
1641		Pike Kate	Lb	June 20 1918	June 20 1919	19	30	45	3	1.80	50 60
1642		Mount Kitty	Lb	June 20 1918	June 20 1919	19	30	45	3	1.80	50 60
1643		Mount Sweetheart	Lb	June 20 1918	June 20 1919	19	30	45	3	1.80	50 60
Class 24d		<i>Bright Friesen's</i>									
1727	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1728	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1729	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1730	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1731	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1732	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1733	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1734	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1735	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1736	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1737	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1738	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1739	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1740	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1741	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1742	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1743	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1744	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1745	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1746	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1747	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1748	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1749	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1750	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1751	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1752	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1753	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1754	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1755	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1756	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1757	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1758	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1759	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1760	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1761	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1762	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1763	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1764	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1765	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1766	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60
1767	Lord Barnby	Beccles Cleopatra	Lb	Sept 25 1916	Mar 27 1917	104	30	78	3	1.80	50 60

1768	G. J. Badcliffe	1470	Mar 6 1911	June 2	34	—	72	0	9 09	72 00	11 68	—	83 68	Fat below Standard	
1770	Lord Rayleigh	1328	Nov 22 1917	Feb 14	145	May	9	57	0	2 22	57 00	8 88	10 50	Fat below Standard	
1771	Walter B. Robinson	1596	Nov 20 1914	May 14	56	—	86	0	1 62	86 00	6 48	0 46	94 08	Fat below Standard	
1772	Friend Sykes	1400	Nov 21 1919	Feb 9	154	—	61	8	3 00	61 50	12 00	11 40	84 90	Second Prize, £10, and Reserve for Champion, £5	
1774	W & B Wallace	1000	Feb 10 1919	June 22	17	—	66	4	3 07	66 25	12 28	—	78 53	Fourth Prize, £4	
1775	W & B Wallace	140	Apr 11 1917	Apr 1	99	June 18	57	12	2 82	57 75	11 48	5 90	4 93	Fat below Standard	
1786	F O Helvar	1750	Sept 1 1922	Apr 26	74	—	30	0	3 32	30 00	13 28	3 40	46 68	—	
Class 249															
1878	Major C R Dudgeon	1043	Nov 2 1911	Apr 6	94	—	42	8	3 20	42 50	12 80	5 40	60 70	H C	
1879	Major C R Dudgeon	931	Mar 29 1918	June 6	33	—	37	8	3 00	5 50	12 00	—	69 50	Third Prize, £5	
1881	James Howie	1200	Apr 1 1913	June 12	27	—	58	12	3 17	58 75	12 68	—	71 43	Second Prize, £10	
1885	A W Montgomerie	1003	Oct 24 1911	June 16	23	—	63	12	3 05	63 75	12 20	—	75 95	First Prize, £15	
1887	Jacob S Murray	1260	Mar 1920	May 31	53	—	63	0	2 75	63 00	11 00	—	74 00	Fat below Standard	
Class 250															
1928	W A Argeat	1050	Dec 16 1918	May 22	48	—	36	3	3 50	36 25	14 20	0 80	51 20	—	
1929	A Chester Beatty	806	July 2 1920	Mar 1	134	—	38	12	4 80	28 75	19 20	5 00	50 95	—	
1930	A Chester Beatty	1190	Aug 31 1916	Apr 10	90	June 1	40	8	4 37	40 50	17 48	5 00	62 48	H C	
1932	George Blight & Son	875	July 23 1912	Apr 20	80	June 29	38	4	4 27	38 25	17 08	4 00	59 33	H C	
1935	Walter Dunkels	1085	Apr 20 1914	June 15	35	—	56	8	4 50	56 50	18 24	—	74 78	First Prize, £15	
1937	Mrs J E Ellis	1148	Apr 1 1920	June 15	24	—	50	0	3 50	50 00	1 00	—	61 00	Fifth Prize, £3	
1938	James Kirby	1042	Feb 7 1920	Apr 30	29	—	54	12	4 25	54 75	22 20	3 00	51 95	—	
1939	Mrs J C Norman	958	Nov 28 1920	Mar 10	29	—	51	12	4 25	51 75	19 00	5 00	70 75	Second Prize, £10	
1941	Messrs C Norman	930	Apr 29 1920	Mar 7	124	—	35	8	3 75	35 50	15 00	6 40	70 30	Third Prize, £5	
1944	Sir James Bernhardt	945	Mar 24 1920	Mar 7	104	—	50	8	3 40	30 40	13 60	6 40	70 30	—	
1946	Samuel Semmens	904	Feb 20 1914	Apr 5	93	July	46	8	4 60	46 50	15 40	5 50	70 40	Fourth Prize, £4	
1950	A Chester Beatty	933	Oct 11 1922	Feb 12	131	May	27	25	0	3 00	23 00	20 00	8 00	53 00	H C
1959	Mrs F H T Jervoise	911	Mar 23 1921	May 18	52	June 29	21	0	4 07	32 00	16 25	1 20	49 48	—	
1961	Col the Hon Geoffrey Lawrence K C	911	Jan 6 1922	May 22	48	—	29	4	4 00	29 25	16 00	0 80	46 05	—	
1962	Messrs C Norman	1006	Mar 17 1910	May 23	47	—	44	12	3 70	44 75	14 90	0 70	60 25	H C	
1963	William Road	909	Apr 5 1921	Apr 15	85	July	4	22	4 25	2 75	19 20	4 50	50 45	—	
1967	Mrs F Sainsbury	1010	Nov 1 1921	June 10	29	—	23	4	4 50	2 25	19 80	—	43 05	—	
Class 251															
2024	Mrs Harry Briggs	919	Aug 2 1911	May 11	53	—	30	3	3 12	30 50	12 48	1 90	53 85	—	
2040	George Cros	840	Oct 15 1910	Apr 10	90	—	30	4	3 67	30 75	14 60	5 00	54 50	—	
2051	Mrs Evelyn	1099	Aug 5 1916	Feb 4	10	May 28	49	0	4 4	4 00	19 88	8 00	7 88	Second Prize, £10, and Reserve for Champion, £5	
2054	Col L G Cuborne	826	Mar 30 1910	Feb 2	15	Apr 1	22	4	4 05	22 25	19 80	11 70	53 75	—	
2055	Col J G Gaborne	819	Aug 5 1919	Jan 22	165	Apr 14	29	8	4 20	29 50	16 90	12 00	58 30	H C	

TABLE I—MILK-YIELD CLASSES AT CHESTER, 1925—continued.

No in catalogue	Exhibitor	Name of cow	Live weight	Date of birth	Date of last calf	No of days milk	Date of last service	Total yield in 24 hours	Fat per cent	Milk	Fat per cent	Lactation	Total	Awards and Remarks
			Lb				1925	lb	%	52.50	21.40	8 00	81 90	First Prize, £15, Special R.J.S., £10 10s and Champion, £20
2037	F B Imbert Terry	Blue Hayes "porcupine"	351	Dec 16 1917	Feb 1 1925	144	Nov 20 1925	8 07	8.5	52.50	21.40	8 00	81 90	First Prize, £15, Special R.J.S., £10 10s and Champion, £20
2042	L E Tubbs	Glenn	791	June 26 1918	June 9 1925	30	—	31	4	4.40	31.25	1" 60	—	48 85
2044	R Bruce Ward	Queen Elizabeth	896	Jan 12 1916	Mar 1 1925	116	June 15 1925	23	0	6.52	29.00	26 08	—	56 68
2045	R Bruce Ward	Miranda "La"	819	Nov 9 1913	Mar 1 1925	111	June 15 1925	23	0	6.52	29.00	26 08	—	56 68
2046	R Bruce Ward	Princess	819	Apr 3 1920	May 19 1925	31	—	51	1	4.30	51.5	1" 40	8 00	H C
2047	R Bruce Ward	Princess	812	May 3 1920	Mar 1 1925	31	—	38	8	4.85	3.50	19.40	1.10	70.05
2050	Grosvener Perry	Palmstress	825	Jun 25 1920	Jan 19 1925	114	—	38	8	4.85	3.50	19.40	7.40	64.70
2053	Col L G Gasborne C M G	Col L G Gasborne	805	Mar 1 1922	Apr 2 1925	2	—	43	8	3.85	43.30	15.80	12.00	75.35
2071	Oscar F Rowntree	Wotton Avelutin	854	Jan 25 1923	May 4 1925	4	—	34	8	5.4	4.50	21.88	2.80	62.50
Class 25														H C
2108	Elmhurst Farming & Trading Co, Ltd	Flora of Carlton	952	Mar 23 1917	Apr 14 1925	86	—	45	4	40	45.25	13.60	4.60	63.45
2110	Kerry Estates, Ltd	Ruby of Carlton	1043	May 13 1915	Mar 15 1925	116	—	8	31	36.50	12.68	7.60	56.78	H C
2111	Kerry Estates, Ltd	Valencia Eileen 3rd	987	Mar 14 1916	May 6 1925	64	—	31	0	30.2	51.00	12.08	2.40	65.48
2112	Kerry Estates Ltd	Valencia Sunflower	966	Mar 18 1921	May 10 1925	60	—	45	0	31.2	45.00	12.48	2.00	59.48
2113	Brag Gen L Palmer	Coquet Geranium	938	Apr 2 1917	Apr 2 1925	5	May 30 1925	38	4	3.97	38.25	15.88	3.80	57.43
Class 25-3														H C
2159	Trustees of Arley Estate	Fillongley Flossan	658	May 28 1920	May 22 1925	49	—	32	0	4.4	32.00	17.88	0.80	50.68
2160	Miss Dora Box	Wightwick Gypsy	574	Dec 10 1921	May 18 1925	52	—	21	4	4.00	21.25	16.00	1.20	38.45
2163	Mrs F Atherton	Bourton Hill boarder Pun	655	Dec 10 1921	May 26 1925	105	—	33	0	3.55	33.00	14.20	6.50	53.70
2165	Brown	Bourton Hill Agate	658	1917	Feb 24 1925	135	June 10 1925	31	8	2.62	31.70	10.48	4.00	45.98
2167	Mrs L Crawford	Bourton Hill Agate	653	Jul 1 1919	May 13 1925	51	—	33	0	3.50	29.00	13.60	1.10	43.70
2168	W Lindsay Everard	Fillongley Forest Fawn	714	Sept 9 1920	May 13 1925	51	—	38	12	3.20	28.5	12.80	1.10	42.65
2170	W Lindsay Everard	Fillongley Forest Flower	812	June 27 1919	Apr 19 1925	62	—	25	0	3.2	25.00	14.88	2.20	42.08
2171	W Lindsay Everard	Pudonella 10th	700	June 23 1921	May 23 1925	47	—	31	12	3.65	31.5	14.60	0.70	47.05
2179	Col W O Gibbs	Barrow Bee 6th	709	June 20 1921	Apr 19 1925	51	—	30	8	3.25	30.50	13.00	4.10	47.60
2180	Mrs C L Pritchard	Oakridge Princess	658	June 4 1914	Apr 24 1925	76	—	33	0	3.42	33.00	13.68	3.60	50.28
2183	Miss Dora Box	Wightmark Dot	599	Apr 26 1923	May 13 1925	57	—	18	4	3.5	18.25	15.00	1.70	34.95

Agricultural Society for the Jersey Cow obtaining greatest number of points :-

F. B. Imbert-Terry, Blue Hayes Sporran.

The "Elmhurst" Perpetual Silver Challenge Cup, value Fifty Guineas, offered by the British Kerry Cattle Society, for the Kerry Cow obtaining the highest number of points :-

Kerry Estates Ltd., Valencia Eileen 3rd.

TABLE II.

No. of Cows Com- peting	Breed	Live Weight	Days in Milk	Milk		Fat per cent.	Points
				Lb	oz		
18	Shorthorn	1414	44	55	10	3.31	69.55
2	Non-Pedigree Shorthorn .	1424	23	56	6	4.11	72.81
9	Lincolnshire Red Shorthorn	1468	42	56	13½	3.26	70.96
2	South Devon	1701	108	42	12	4.13	61.09
10	Red Poll	1270	75	45	12	3.23	62.46
4	Blue Albion	1447	24	56	1	3.60	70.48
26	British Friesian	1469	72	67	8	2.76	79.89
5	Ayrshire	1109	43	57	1½	3.03	70.31
17	Guernsey	987	72	37	11½	4.33	57.95
14	Jersey	866	108	38	2½	4.60	62.90
5	Kerry	977	79	43	3½	3.33	60.52
11	Dextor	649	69	28	8½	3.64	45.19

BUTTER TESTS (CLASSES 254A & B).

Out of an entry of 105, 81 animals were present to compete for the Butter Test Prizes, and of these 37 were disqualified from receiving mention as their milk showed a butter ratio of over 30 lb, which means that it would take 3 gallons of milk in each case to make 1 lb. butter, estimating a gallon of milk to weigh 10 lb.

The cattle, both in the milking and butter test trials, were weighed at 6 p.m. on Wednesday, July 8, and in the case of the Butter Test Cattle were afterward placed in their respective classes, A and B. Those exceeding 900 lb. live weight being in A Class and those not exceeding that figure in B Class.

Full particulars of the trials are given in Table III and the average results of each breed in Table IV.

Churning commenced on Friday morning, July 10, at 9 30 a.m. and the awards were all posted up at 7 p.m.

1646	1647	T H Swire & Sons	1491	1918	June 5	34	29	64	12	2	132	23 1/2	44 7/8	5th Prize	
		Mount Kitty	1582	1918	June 10	29		66	12	2	1	34 87	33 00	Ratio over 30	
		Mount Sweetheart													
1728	1729	Lord Barnby	1631	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1731	1732	Lord Barnby	1632	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1733	1734	Lord Barnby	1633	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1735	1736	Lord Barnby	1634	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1737	1738	Lord Barnby	1635	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1739	1740	Lord Barnby	1636	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1741	1742	Lord Barnby	1637	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1743	1744	Lord Barnby	1638	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1745	1746	Lord Barnby	1639	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1747	1748	Lord Barnby	1640	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1749	1750	Lord Barnby	1641	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1751	1752	Lord Barnby	1642	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1753	1754	Lord Barnby	1643	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1755	1756	Lord Barnby	1644	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1757	1758	Lord Barnby	1645	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1759	1760	Lord Barnby	1646	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1761	1762	Lord Barnby	1647	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1763	1764	Lord Barnby	1648	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1765	1766	Lord Barnby	1649	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1767	1768	Lord Barnby	1650	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1769	1770	Lord Barnby	1651	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1771	1772	Lord Barnby	1652	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1773	1774	Lord Barnby	1653	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1775	1776	Lord Barnby	1654	Sept 14	1916	Apr 15	85	60	0	1	81	39 38	24 25	4 50	Ratio over 30
1881	1882	James Howie	1225	Apr 1918	June 12	27		58	12	1	131	32 93	29 50	Ratio over 30	
1883	1884	A W Montlornie	1226	Oct 24, 1917	June 16	23		63	12	1	131	32 93	29 50	Ratio over 30	
1887	1888	Jacob S Murray	1260	Mar, 1920	May 31	39		63	0	1	9	40 32	25 00	Ratio over 30	
1928	1929	W A Argent	1057	Dec 16, 1918	May 22	48		36	4	1	71	24 68	23 50	Ratio over 30	
1930	1931	A Cheater Beatty	1190	Aug 31, 1916	Apr 10	90		June 19	40	8	124	22 53	28 75	H C	
1944	1945	Sir James Remnant, Bart, M P	945	May 24, 1920	Mar 27	104		50	8	1	94	31 37	25 75	Ratio over 30	
1959	1960	Mrs F H T Jervoise	931	Mar 23 1921	May 18	52		June 28	32	0	1	81	20 80	24 50	Ratio over 30
1965	1966	Mrs F Sainsbury	1089	Nov 12 1921	June 10	29		23	4	1	134	12 50	29 75	H C	
2031	2032	Mrs Evelyn	1099	Aug 8 1916	Feb 4	155		May 28	49	0	2	11	18 23	43 00	Second Prize and Silver Medal
2037	2038	F B Imbert Terry	931	Dec 16 1917	Feb 13	148		May 20	52	8	2	13	18 75	45 00	First Prize and Gold Medal
2046	2047	R Bruce Ward	938	Apr 3 1920	Mar 19	51		51	12	2	54	22 22	37 25	Cert. of Merit	

The "Butter ratio" represents the number of lb of milk required to make 1 lb of butter. Ten lb of milk are reckoned as equal to an Imperial gallon

TABLE III—RESULTS OF BUTTER TESTS AT CHESTER, 1925—continued
 CLASS 2-4A—COWS NOT EXCEEDING 900 LB LIVE WEIGHT

No in Catalogue	Exhibitor	Name of cow	Live weight	Date of birth	Date of last calving	No of calves milked	Date of last service	Milk yield in 24 hour	Butter yield	Butter ratio	No of points for butter	No of points for milk	Awards
								Lb	Oz	Lb	Ct		
2054	C J Phillips	Fly's Sweetheart	966	Jan 20 1922	May 1922	42	19.5	44	12	1 14	23 86	30 00	0 20 30 20 Cert of Merit.
2108	Elmhurst Farming & Trading Co., Ltd	Flora of Carton	912	Mar 23 1917	Apr 14 1921	86	—	43	4	1 6 1	31 82	22 75	4 00 27 35 Ratio over 30
2110	Kerry Potatoes Ltd	Ruby of Carton	1043	Mar 13 1918	Mar 10 1921	116	—	36	8	1 3	30 73	19 00	7 60 26 60 Ratio over 30
2111	Kerry Potatoes Ltd	Valencia Eileen 3rd	987	Mar 14 1916	May 6 1921	64	—	31	0	1 9 1	31 69	23 75	2 40 28 15 Ratio over 30
2112	Kerry Potatoes Ltd	Valencia Sunflower	966	Mar 18 1921	May 10 1921	80	—	43	0	1 7	31 30	23 00	2 00 25 00 Ratio over 30
CLASS 2-4B—COWS NOT EXCEEDING 900 LB LIVE WEIGHT													
<i>Guernsey</i>													
1929	A Chester Beatty	Calehill Golden Lady	896	Jul 27 1920	Mar 7 1924	124	—	26	12	1 0 1	19 6	21 50	0 00 26 75
1939	Mrs J E Kirby	Dawn of Meadow View	896	Nov 28 1920	June 10 1924	29	—	51	12	2 9	20 19	41 00	— 41 00 Second Prize
1948	Mrs E M Attlee	Grasmere Bluebell 2nd	786	Aug 19 1922	May 24 1924	46	—	24	0	1 0	24 00	16 00	0 60 16 00
1950	A Chester Beatty	Calehill Princess 2nd	810	Oct 11 1922	Feb 12 1924	147	May 27	25	0	1 5 1	18 82	21 25	8 00 26 25
1966	A Chester Beatty	Calehill Prince 2	742	Apr 11 1923	May 2 1924	68	—	26	4	1 2	23 33	18 00	2 80 29 80
<i>Jersey</i>													
2024	Mrs Harry Briggs	Petunia Victory	810	Aug 26 1918	May 11 1924	59	—	39	8	1 5 1	29 03	21 75	1 90 23 65
2030	George Cross	Roberta Star 2nd	840	Oct 13 1920	Apr 10 1924	90	—	35	4	1 5 1	26 54	21 25	5 00 26 25
2034	Col L G Gaborne, C M G	Belle Farmhouse	826	Mar 30 1920	Feb 2 1924	157	Apr 12	22	4	1 3	18 73	19 00	11 70 30 70
2035	Col L G Gaborne, C M G	Sweetbread 50th	819	Aug 9 1919	Jan 22 1924	168	Apr 14	29	8	1 4 1	23 02	20 25	12 00 32 50
2042	L E Tubbs	Glenny	791	June 26 1918	June 9 1924	90	—	31	4	0 15 1	32 25	15 50	— 15 50 Ratio over 20
2044	L E Tubbs	Queen Elizabeth	896	Jan 12 1916	Mar 13 1924	116	June 15	23	0	1 11 1	13 26	21 75	7 60 35 35 Fourth Prize.
2045	E Bruce Ward	Maranda's Lass	819	Nov 5 1919	Mar 10 1924	121	June 21	39	0	1 11 1	22 80	27 25	8 00 35 25 Fifth Prize.
2047	E Bruce Ward	Princess	812	May 3 1920	Mar 1 1924	114	—	37	8	2 0 1	18 60	32 25	7 40 39 65 Third Prize.
2050	Grosvenor Berry	Postmistress	882	Jan 2 1922	Jan 10 1924	170	Mar 31	40	12	2 4 1	20 19	36 25	12 00 48 25 First Prize and Bronze Medal
2053	Col L G Gaborne C M G	Cld's Raleigh Spectre	805	Mar 1 1922	Apr 28 1924	72	—	43	9	1 15	22 45	31 00	3 20 34 20 Cert of Merit

* The "Butter ratio" represents the number of lb of milk required to make 1 lb of butter. Ten lb of milk are reckoned as equal to an imperial gallon.

TABLE IV.—Average Results obtained from the Cows in the Butter Test Classes.

CLASS 254A.—EXCEEDING 900 lb. LIVE WEIGHT.

No. of Cows Competing.	Breed	Live weight	Days in milk	Milk		Butter yield		Ratio	Total Points
				Lb.	oz.	Lb.	oz.		
13	Shorthorn . . .	1442	37	57	10½	2	1½	27·73	33·25
5	Lincolnshire Red								
	Shorthorn . . .	1502	42	58	12	1	15½	29·89	31·70
2	South Devon . . .	1701	108	42	12	1	14½	22·61	37·05
5	Red Poll . . .	1314	77	46	5½	1	10½	27·98	30·20
4	Blue Albion . . .	1440	25	55	13	2	2	26·19	34·00
21	British Friesian . . .	1438	73	68	15	1	11½	40·11	31·10
3	Ayrshire . . .	1187	29	61	13½	1	12½	34·46	28·66
5	Guernsey . . .	1044	64	36	8	1	10½	22·03	28·90
4	Jersey . . .	983	99	49	8	2	6½	20·43	44·65
4	Kerry . . .	987	81	44	7	1	6½	31·60	26·60

CLASS 254B.—COWS NOT EXCEEDING 900 lb. LIVE WEIGHT.

5	Guernsey . . .	826	82	30	12	1	7½	20·71	27·95
10	Jersey . . .	830	109	34	10½	1	9½	21·96	32·15

MILK YIELD TRIALS

(GOATS, CLASSES 264 AND 265).

The number of goats competing in these Trials was 26 out of an original entry of 38. These were milked out on Tuesday, July 7, at 7 p.m., the milk for the next 24 hours being taken for the Quality Trials with an extra milking 12 hours for the quantity trials. Mr. Thomas W. Palmer, the Hon. Secretary of the British Goat Society, was present and kindly superintended the whole of the work. Full particulars of the Trials are given in Table on page 190.

EXPERIMENTS IN THE DAIRY.

CHESHIRE CHEESE.

Chester being a centre of the Cheshire Cheese industry, it was decided to carry out experiments to show that the quality, and perhaps the quantity, of the cheese might be improved if milk with a somewhat higher percentage of fat than 3 per cent. were used.

With a view to obtain this it was proposed to use Channel Island milks in the proportion of 25 per cent., the remaining 75 per cent. being milk from the Dairy Shorthorn and British

TABLE V.—MILK-YIELD CLASSES FOR GOATS AT CHESTER, 1925

No. in Catalogue	Exhibitor	Name of goat	Breed	Date of birth	Date of last kid	No. of kids in milk	Percent- age of Fat		Percent- age of Solids not Fat	Points				Awards and Remarks								
							Trials	Milk yield		M in	P in	L in	Milk		Butt lb	Butt not	Location	1st				
22025	Clara 254 (Quality)	Sandhill Grey	T. Greenburg	April 8 1910	May 6 1912	10	1	2.5	32	82	58	622	290	0.30	1st							
22026	Miss M. Henderson	Leazes Fawn	T. Greenburg	Feb 19 1913	May 6 1915	6	1	16	0	16	8	57	10	0.85	1st							
22027	Miss A. Abbey	Digemere Dusk	British Swan	Mar 31 1913	April 2 1914	1	1	14	0	4	27	57	12	0.50	Fourth							
22028	Mrs J. C. Straker	Leazes Fawn	British Swan	May 1 1923	Sept 4 1925	4	306	8	13	3	3	833	847	881	656	311	440	22	ss	Reserve		
22029	Miss K. Kelly	Nash Bellona	Angl. Nubian	Mar 27 1920	Mar 24 1922	10	8	4	503	89	87	937	825	904	302	100	21	31	H C	Reserve for Fomeny Cup		
22030	Mrs K. Kelly	Theridon Belladonna	Angl. Nubian	Sept 13 1909	May 14 1911	14	8	5	89	88	914	988	831	1060	307	0.20	22	18	H C	Fomeny Cup		
22031	Mrs A. F. Pickard	Theridon Belladonna	Angl. Nubian	Feb 19 1913	Feb 14 1915	14	1	3	1	6	8	58	56	631	706	243	0.20	10	19	H C	Fomeny Cup	
22032	Mrs C. L. Pickard	Torchester Fawn	Anglo Nubian	Mar 1 1915	Feb 6 1917	6	146	2	8	16	62	10	10	2	187	180	1	1	1	1	1	
22033	Mrs A. Abbey	Digemere Dusk	British Alpine	June 1 1921	Jan 3 1923	3	169	1	5	3	92	872	840	1031	501	395	0.20	24	57	Fifth	—	
22034	Mrs A. Abbey	Digemere Dusk	British Alpine	May 19 1917	Feb 24 1919	133	13	3	4	7	2	4	87	856	13	10	41	29	64	Th	—	
22035	Mrs A. Abbey	Digemere Dusk	British Alpine	Feb 17 1923	Mar 19 1925	49	17	8	391	4	8	884	17	56	13	83	0.10	37	41	First Dewar Trophy and Dual Fun	—	
22036	Mrs A. Abbey	Digemere Dusk	British Alpine	May 6 1921	Mar 14 1923	110	14	7	426	39	82	840	14	43	11	89	490	120	33	41	Second Reserve for Dewar Trophy	—
22037	Mrs J. C. Straker	Leazes Kurlie	British Alpine	Mar 24 1922	May 7 1924	7	9	4	411	31	84	863	9	2	631	316	120	0	6	1	H C	—
22038	Miss M. Henderson	Riding Topaz	Anglo Nubian Swd	Feb 1 1913	April 17 1915	16	6	6	4	11	31	84	8	37	851	316	0.70	17	14	H C	—	
22039	Mrs E. W. Wroughton	South Federation 2:11	Angl. Nubian Sws	Jan 29 1923	May 14 1925	14	4	0	413	34	943	9	23	0	23	290	0.20	12	63	H C	—	
22040	Mrs A. Abbey	Digemere Dusk	British Alpine	April 8 1910	May 4 1912	4	62	1	10	—	—	—	—	—	19	62	—	13	92	Reserve	—	
22041	Miss M. Henderson	Leazes Fawn	T. Greenburg	Feb 6 1913	May 6 1915	182	14	1	14	1	—	—	—	—	14	62	—	17	13	Reserve	—	
22042	Mrs J. C. Straker	Leazes Fawn	British Swan	May 1 1923	Sept 4 1925	4	306	13	14	—	—	—	—	—	19	62	—	17	13	Reserve	—	
22043	Mrs A. Abbey	Digemere Dusk	British Alpine	Mar 19 1912	Feb 24 1914	133	7	0	—	—	—	—	—	—	19	13	—	1	0	20	62	Third
22044	Mrs A. Abbey	Digemere Dusk	British Alpine	Feb 17 1923	Mar 19 1925	49	17	8	391	4	8	884	17	56	13	83	0.10	37	41	First Dewar Trophy and Dual Fun	—	
22045	Mrs A. Abbey	Digemere Dusk	British Alpine	May 6 1921	Mar 14 1923	110	14	7	426	39	82	840	14	43	11	89	490	120	33	41	Second Reserve for Dewar Trophy	—
22046	Mrs J. C. Straker	Leazes Kurlie	British Alpine	Mar 24 1922	May 7 1924	7	9	4	411	31	84	863	9	2	631	316	120	0	6	1	H C	—
22047	Miss M. Henderson	Riding Topaz	Anglo Nubian Swd	Feb 1 1913	April 17 1915	16	6	6	4	11	31	84	8	37	851	316	0.70	17	14	H C	—	
22048	Mrs E. W. Wroughton	South Federation 2:11	Angl. Nubian Sws	Jan 29 1923	May 14 1925	14	4	0	413	34	943	9	23	0	23	290	0.20	12	63	H C	—	
22049	Mrs A. Abbey	Digemere Dusk	British Alpine	April 8 1910	May 4 1912	4	62	1	10	—	—	—	—	—	19	62	—	13	92	Reserve	—	
22050	Miss M. Henderson	Leazes Fawn	T. Greenburg	Feb 6 1913	May 6 1915	182	14	1	14	1	—	—	—	—	14	62	—	17	13	Reserve	—	
22051	Mrs J. C. Straker	Leazes Fawn	British Swan	May 1 1923	Sept 4 1925	4	306	13	14	—	—	—	—	—	19	62	—	17	13	Reserve	—	
22052	Mrs A. Abbey	Digemere Dusk	British Alpine	Mar 19 1912	Feb 24 1914	133	7	0	—	—	—	—	—	—	19	13	—	1	0	20	62	Third
22053	Mrs A. Abbey	Digemere Dusk	British Alpine	Feb 17 1923	Mar 19 1925	49	17	8	391	4	8	884	17	56	13	83	0.10	37	41	First Dewar Trophy and Dual Fun	—	
22054	Mrs A. Abbey	Digemere Dusk	British Alpine	May 6 1921	Mar 14 1923	110	14	7	426	39	82	840	14	43	11	89	490	120	33	41	Second Reserve for Dewar Trophy	—
22055	Mrs J. C. Straker	Leazes Kurlie	British Alpine	Mar 24 1922	May 7 1924	7	9	4	411	31	84	863	9	2	631	316	120	0	6	1	H C	—
22056	Miss M. Henderson	Riding Topaz	Anglo Nubian Swd	Feb 1 1913	April 17 1915	16	6	6	4	11	31	84	8	37	851	316	0.70	17	14	H C	—	
22057	Mrs E. W. Wroughton	South Federation 2:11	Angl. Nubian Sws	Jan 29 1923	May 14 1925	14	4	0	413	34	943	9	23	0	23	290	0.20	12	63	H C	—	
22058	Mrs A. Abbey	Digemere Dusk	British Alpine	April 8 1910	May 4 1912	4	62	1	10	—	—	—	—	—	19	62	—	13	92	Reserve	—	
22059	Miss M. Henderson	Leazes Fawn	T. Greenburg	Feb 6 1913	May 6 1915	182	14	1	14	1	—	—	—	—	14	62	—	17	13	Reserve	—	
22060	Mrs J. C. Straker	Leazes Fawn	British Swan	May 1 1923	Sept 4 1925	4	306	13	14	—	—	—	—	—	19	62	—	17	13	Reserve	—	
22061	Mrs A. Abbey	Digemere Dusk	British Alpine	Mar 19 1912	Feb 24 1914	133	7	0	—	—	—	—	—	—	19	13	—	1	0	20	62	Third
22062	Mrs A. Abbey	Digemere Dusk	British Alpine	Feb 17 1923	Mar 19 1925	49	17	8	391	4	8	884	17	56	13	83	0.10	37	41	First Dewar Trophy and Dual Fun	—	
22063	Mrs A. Abbey	Digemere Dusk	British Alpine	May 6 1921	Mar 14 1923	110	14	7	426	39	82	840	14	43	11	89	490	120	33	41	Second Reserve for Dewar Trophy	—
22064	Mrs J. C. Straker	Leazes Kurlie	British Alpine	Mar 24 1922	May 7 1924	7	9	4	411	31	84	863	9	2	631	316	120	0	6	1	H C	—
22065	Miss M. Henderson	Riding Topaz	Anglo Nubian Swd	Feb 1 1913	April 17 1915	16	6	6	4	11	31	84	8	37	851	316	0.70	17	14	H C	—	
22066	Mrs E. W. Wroughton	South Federation 2:11	Angl. Nubian Sws	Jan 29 1923	May 14 1925	14	4	0	413	34	943	9	23	0	23	290	0.20	12	63	H C	—	
22067	Mrs A. Abbey	Digemere Dusk	British Alpine	April 8 1910	May 4 1912	4	62	1	10	—	—	—	—	—	19	62	—	13	92	Reserve	—	
22068	Miss M. Henderson	Leazes Fawn	T. Greenburg	Feb 6 1913	May 6 1915	182	14	1	14	1	—	—	—	—	14	62	—	17	13	Reserve	—	
22069	Mrs J. C. Straker	Leazes Fawn	British Swan	May 1 1923	Sept 4 1925	4	306	13	14	—	—	—	—	—	19	62	—	17	13	Reserve	—	
22070	Mrs A. Abbey	Digemere Dusk	British Alpine	Mar 19 1912	Feb 24 1914	133	7	0	—	—	—	—	—	—	19	13	—	1	0	20	62	Third
22071	Mrs A. Abbey	Digemere Dusk	British Alpine	Feb 17 1923	Mar 19 1925	49	17	8	391	4	8	884	17	56	13	83	0.10	37	41	First Dewar Trophy and Dual Fun	—	
22072	Mrs A. Abbey	Digemere Dusk	British Alpine	May 6 1921	Mar 14 1923	110	14	7	426	39	82	840	14	43	11	89	490	120	33	41	Second Reserve for Dewar Trophy	—
22073	Mrs J. C. Straker	Leazes Kurlie	British Alpine	Mar 24 1922	May 7 1924	7	9	4	411	31	84	863	9	2	631	316	120	0	6	1	H C	—
22074	Miss M. Henderson	Riding Topaz	Anglo Nubian Swd	Feb 1 1913	April 17 1915	16	6	6	4	11	31	84	8	37	851	316	0.70	17	14	H C	—	
22075	Mrs E. W. Wroughton	South Federation 2:11	Angl. Nubian Sws	Jan 29 1923	May 14 1925	14	4	0	413	34	943	9	23	0	23	290	0.20	12	63	H C	—	
22076	Mrs A. Abbey	Digemere Dusk	British Alpine	April 8 1910	May 4 1912	4	62	1	10	—	—	—	—	—	19	62	—	13	92	Reserve	—	
22077	Miss M. Henderson	Leazes Fawn	T. Greenburg	Feb 6 1913	May 6 1915	182	14	1	14	1	—	—	—	—	14	62	—	17	13	Reserve	—	
22078	Mrs J. C. Straker	Leazes Fawn	British Swan	May 1 1923	Sept 4 1925	4	306	13	14	—	—	—	—	—	19	62	—	17	13	Reserve	—	
22079	Mrs A. Abbey	Digemere Dusk	British Alpine	Mar 19 1912	Feb 24 1914	133	7	0	—	—	—	—	—	—	19	13	—	1	0	20	62	Third
22080	Mrs A. Abbey	Digemere Dusk	British Alpine	Feb 17 1923	Mar 19 1925	49	17	8	391	4	8	884	17	56	13	83	0.10	37	41	First Dewar Trophy and Dual Fun	—	
22081	Mrs A. Abbey	Digemere Dusk	British Alpine	May 6 1921	Mar 14 1923	110	14	7	426	39	82	840	14	43	11	89	490	120	33	41	Second Reserve for Dewar Trophy	—
22082	Mrs J. C. Straker	Leazes Kurlie	British Alpine	Mar 24 1922	May 7 1924	7	9	4	411	31	84	863	9	2	631	316	120	0	6	1	H C	—
22083	Miss M. Henderson	Riding Topaz	Anglo Nubian Swd	Feb 1 1913	April 17 1915	16	6	6	4	11	31	84	8	37	851	316	0.70	17	14	H C	—	
22084	Mrs E. W. Wroughton	South Federation 2:11	Angl. Nubian Sws	Jan 29 1923	May 14 1925	14	4	0	413	34	943	9	23	0	23	290	0.20	12	63	H C	—	
22085	Mrs A. Abbey	Digemere Dusk	British Alpine	April 8 1910	May 4 1912	4	62	1	10	—	—	—	—	—	19	62	—	13	92	Reserve	—	
22086	Miss M. Henderson	Leazes Fawn	T. Greenburg	Feb 6 1913	May 6 1915	182	14	1	14	1	—	—	—	—	14	62	—	17	13	Reserve	—	
22087	Mrs J. C. Straker	Leazes Fawn	British Swan	May 1 1923	Sept 4 1925	4	306	13	14	—	—	—	—	—	19	62	—	17	13	Reserve	—	
22088	Mrs A. Abbey	Digemere Dusk	British Alpine	Mar 19 1912	Feb 24 1914	133	7	0	—	—	—	—	—	—	19	13	—	1	0	20	62	Third
22089	Mrs A. Abbey	Digemere Dusk	British Alpine	Feb 17 1923	Mar 19 1925	49	17	8	391	4	8	884	17	56	13	83	0.10	37	41	First Dewar Trophy and Dual Fun	—	
22090	Mrs A. Abbey	Digemere Dusk	British Alpine	May 6 1921	Mar 14 1923	110	14	7	426	39	82	840	14	43	11	89	490	120	33	41	Second Reserve for Dewar Trophy	—
22091	Mrs J. C. Straker	Leazes Kurlie	British Alpine	Mar 24 1922	May 7 1924	7	9	4	411	31	84	863	9	2	631	316	120	0	6	1	H C	—
22092	Miss M. Henderson	Riding Topaz	Anglo Nubian Swd	Feb 1 1913	April 17 1915	16	6	6	4	11	31	84	8	37	851	316	0.70	17	14	H C	—	
22093	Mrs E. W. Wroughton	South Federation 2:11	Angl. Nubian Sws																			

Friesian breeds. These milks were all obtained from the cows on the Showground, the following milks being used :—

- 1.—Shorthorn, from morning's milk.
- 2.—British Friesian, from morning's milk.
- 3.—Shorthorn, from evening milk.
- 4.—British Friesian, from evening milk.
- 5.—Shorthorn and Jersey.
- 6.—Shorthorn and Guernsey.
- 7.—British Friesian and Jersey.
- 8.—British Friesian and Guernsey.

The Table on page 192 gives full details of the trial, the cheeses being placed in their order of milk.

The sulphuric acid supplied for the Gerber Tester was found on Monday morning to be unsuitable and a fresh supply could not be obtained until Wednesday. It was therefore impossible to ascertain the percentage of fat in each lot of milk throughout the week. The average fat percentages in the milk of the cattle entered for the milking trials (from which milks the cheeses had been made) give a fairly approximate idea of the quality of the milks used in this experiment. These fat percentages were as follows :—Shorthorn, 3.31 fat ; British Friesian, 2.76 fat ; Guernsey, 4.33 fat ; Jersey, 4.60 fat.

A glance at the figures will show that it was difficult to obtain sufficient milk in the afternoon, so cheeses from the Shorthorn and Friesian milks were made twice, one lot of 10 gallons being used in each case from morning's milk and a second cheese being made from 30 gallons of evening milk.

The cheeses were taken from the Show to the Farm Institute at Penkridge, Stafford, where they were looked after by Miss E. Noble, the Dairy Instructress to the Staffordshire County Council. They were subsequently judged by Mr. J. C. Ruston, the Principal of the Institute, who has on previous occasions undertaken this work for the Society, for which I ask him again to accept their sincere thanks.

Looking at the result of the experiment it would appear that the addition of Channel Island milk to the Dairy Shorthorn and British Friesian milks has resulted in an improved cheese in every respect.

The bitter flavour noted against the Friesian cheese is probably due to the food the cows were having.

WENSLEYDALE CHEESE.

As Wensleydale is a comparatively easy cheese to make and one which is increasing in popularity, 3 cheeses from the milks of the Ayrshire and Channel Island breeds were made during the week of the Show. Table VII gives full particulars connected with the making of the cheeses.

TABLE VI.

Date	Breed	Milk in Gallons	Time of Milking	Weight in lb				Remarks	Order of Merit
				Curd	Cheese from Press	Ripe Cheese	Loss in Weight		
1925									
July 8	Shorthorn Guernsey.	30 | 40 10 |	a.m. p.m.	57½	46½	42½	3½	Quality very good. Colour very good. Flavour good. Fine silky open texture	First
July 7	Shorthorn Jersey	30 | 40 10 |	p.m. p.m.	51	45	42½	3½	Quality very good. Colour very good. Flavour very good. Fine silky texture, rather close	Second
July 7	British Friesian Jersey	30 | 40 10 |	p.m. p.m.	50	44½	39½	5½	Quality good. Colour fair. Flavour bitter. Fine open texture	Third
July 8	British Friesian Guernsey.	30 | 40 10 |	a.m. p.m.	50	44	39	5	Quality good. Colour fair. Flavour bitter. Good open texture	Fourth
July 10	Shorthorn	30 30	p.m.	37	32½	30½	2½	Quality very good. Colour good. Flavour good. Texture rather close	Fifth
July 6	Shorthorn	40 40	a.m.	46	39½	36½	3	Quality very good. Colour good. Flavour good. Texture close	Sixth
July 6	British Friesian	40 40	a.m.	47½	42½	36½	6	Quality good. Colour fair. Flavour fair, slightly bitter. Texture close	Seventh
July 9	British Friesian	30 30	p.m.	32	29½	27	2½	Quality good. Colour dull. Flavour good. Texture good, open	Eighth

TABLE VII.
WENSLEYDALE CHEESE EXPERIMENT.

Date	Breed	Milk in Gallons	Quantity Curd in lb	Quality of Curd	Weight			Remarks
					Cheese from press	Cheese when ripe	Loss in weight	
July 6	Jersey .	12	18	Rather firm	lb 15 0 oz 13	lb 13	lb 2 0 oz 0	Quality and flavour fair. Texture soft
July 7 .	Ayrshire	12	17	Very good	lb 13 3 oz 10	lb 10	lb 3 3 oz 3	Quality very good. Flavour good. Texture good. Blue veined
July 8	Guernsey. .	12	20	Very good	lb 16 8 oz 12	lb 12	lb 4 8 oz 8	Quality very good. Flavour good. Texture rather close. Blue veined

As all the milk from the cattle in the Showground has to be brought to the Dairy during the time cattle are in the yard, the Dairy Staff, when not engaged with the Milk Yield and Butter Test trials, were employed in the making of cream and other soft cheeses, and the manufacture of scalded cream from the various milks, showing how to get the best results therefrom, by securing correct temperatures, noting times for setting, etc., etc., and other details, all of which can be obtained at the dairy—and in the making of cheese mixtures, an economical way of using up cheese which has gone dry—to which must be added the sampling of milk and the use of the Gerber Tester.

The work in the Dairy is hard and continuous, and to the Stewards, the dairymaids and all the workers in and about the Dairy, particularly to Mr. Hasted, whose assistance to me is invaluable, I am again privileged to return my most sincere thanks.

ERNEST MATHEWS.

Elmodosham House,
Amersham.

AGRICULTURAL EDUCATION EXHIBIT, CHESTER, 1925.

THE dissemination of the results of research and other agricultural investigations and experiments is by no means the least function in the scheme of agricultural education. To fulfil this purpose effectively the practical results of research work must reach the farmers for whose benefit it is intended. These results can only become available if, and when, they are published. In certain fields of research such publications would not be readily understood by the majority of farmers, and it is important that the circulation and acquisition of knowledge should not be prejudiced by the use of highly technical language. While courses of training at University centres, agricultural colleges, and farm institutes serve as a means of instilling these results into some of the future generation of farmers, the present body of farmers, their sons and daughters, who are not in a position to receive an institutional training, require different methods of information. The functions in this respect are therefore delegated to County Organisers and Advisory Officers who, by maintaining personal contact with the farming community, act as the links in the chain of transmission of new knowledge, methods and practice. By means of lectures, of discussion societies, of correspondence, and so forth, effective distribution of research is accomplished, and the system affords the means of relaying criticisms of the value of results back to the research workers.

The agricultural, daily, and weekly press, the Government departments, and various agricultural societies also take a hand in imparting this knowledge in simple ways to the farming community through their papers and publications. Latterly the introduction of wireless has increased the scope of distributing research results and made it possible for their transmission direct to the farmer.

The exhibits which are shown every year at the Society's annual show make a valuable contribution to the diffusion of agricultural knowledge and are by no means the least valuable in this direction. Inasmuch as representatives of the various stations are in attendance to explain and amplify the information set forth, exhibits of this description serve a dual purpose. The personal contact thus created ensures that the inquirer is given the salient facts, with such qualifications as are important, while at the same time the research worker is given an opportunity of becoming conversant with the practical opinions on and criticisms of his line of research. In addition they serve to create in the mind of the research worker a feeling of responsibility as to the immediate and ultimate utilitarian value of the work he presents.

The Exhibition at Chester this year, which was again under the charge of Mr. Wilfred H. Parker, attracted a large number of agricultural and other visitors.

The number of stations represented was well up to average, and the inclusion of an exhibit from the recently established Agricultural Engineering Institute at Oxford added a new feature to the educational display at the Show.

Writers of this report in the past have continually drawn attention to defects in the presentation of the material exhibited, and it becomes rather monotonous to have to repeat this criticism year after year without any evident improvement being effected in this respect. This year's exhibit was no exception in this sense. Inadequate labelling of exhibits and, in some cases, overcrowding were noticeable defects. On the other hand one station represented had so much space at its disposal that it was able to display a photograph of the staff and a syllabus of the curriculum. There also appeared to be a tendency on the part of Colleges to illustrate the educational facilities provided by them rather than the results achieved by their investigations, which conceivably is the principal object of these exhibits.

The presence of overcrowded exhibits and under-filled spaces appears to indicate that the cubicle type of stall is not altogether the most desirable. In a straight run it would be possible for one department, which might find itself overcrowded, to utilise the space not required by other departments. Over-

crowding is to some extent due to a natural desire to include as many illustrations as possible without due regard being paid to their educational value. On the ground that an exhibit should have a definite educational value, it may be possible to secure a better selection of material and so help to obviate defects of this nature. The exhibit of the Cheshire School of Agriculture was a marked contrast to the exhibits of the other Research Stations. This exhibit was placed in a large tent by itself and adequate space was available for all the material. Definite breaks were made between each subject, each subject was adequately labelled, and there was plenty of room to walk around freely. It is useful to give local institutions a premier place in an exhibit of this kind, as farmers from other parts of the country are keen to ascertain the prominent features of local agriculture, but other exhibitors suffered in comparison and much of their display was made ineffective from the showman's point of view. Surely the expense which is incurred in placing the exhibits of these more remote stations is alone a cogent argument that no trouble should be spared in making them serve effectively the purpose for which they are exhibited.

Lawes Agricultural Trust, Rothamsted.—The Rothamsted Station had a very comprehensive exhibit and perhaps the most interesting and practical part was that relating to the influence of manures on the yield and quality of barley. On soils which are at all suitable it is the ideal of every farmer who grows barley to obtain a malting sample. In order to be successful in this respect farmers in general have followed established practices in regard to manuring. The scheme of manuring was mainly phosphatic. Nitrogen, if used at all, was only given when barley was taken after another corn crop. In this respect practice and current teaching were largely in agreement, for it was considered that the use of nitrogen, besides leading to an excess of straw and consequent lodging at harvest time, had an adverse effect on the malting qualities of the grain. Since 1922 Sir John Russell and his colleagues have been investigating the truth or otherwise of these practices in relation to one variety of Barley, viz., Plumage Archer. A distinguishing feature is that all the experimental barleys are examined by expert maltsters and afterwards separately malted and the malt analysed. As a result they have shown that the use of nitrogen, even after roots folded, has not adversely affected the valuation of the barley or the value of the resulting malt. The use of 1 cwt. Sulphate of Ammonia had actually increased the valuation of the barley at 5 out of 7 stations, one showed the same valuation, while the remaining one gave a small decrease in the valuation as compared with land not so treated. Not only so but the mean increase in yield of barley from the use of this fertiliser was 5·4

bushels per acre. When it is remembered that statistical evidence over a long period of years shows very little increase in the yield of barley, the results achieved in these experiments are of great agricultural importance.

An interesting chart was that showing the distribution of green manuring experiments. This series of experiments is being carried out by the aid of grants from the Society. The value and importance of mustard as a green manuring crop is well known to farmers, but the growing of winter catch crops to be turned in before root crops is probably of greater agricultural significance. The retarding factors at the moment are climate and rainfall, as it appears to be established that winter catch crops for green manuring can only be successfully grown in regions with an average winter temperature of 40° F, and an annual rainfall of 30 to 40". Investigations are therefore proceeding to discover crops which will withstand the colder and drier climates of the North and East.

Other exhibits from this Station illustrated the results of manurial experiments on the permanent barley fields at Rothamsted, the effect of manures on starch production, the possibilities of inoculation on the growth of lucerne, and the distribution of centres where artificial farm-yard manure is being produced. It is noteworthy, in connection with the latter, that in 1924 some 3,000 tons of straw were converted in Britain alone, while the spread of this method of treatment has extended to many other countries of the world, actually much larger quantities of straw being treated abroad than in this country.

Altogether this exhibit was very useful. Sir John Russell, however, appears to justify the economic practicability of his results by the *extent* of the gains he obtains, and it would have completed the picture, if in some cases the cash *value*, which is a convincing argument to the farmer, had also been demonstrated.

University College of North Wales, Bangor.—This department had a wealth of material on view, but the space available was much too small, and consequently it was exceptionally difficult to sort out the various exhibits.

One of the most virulent diseases known to the flockmaster is Liver Rot, and owing to the severity of this disease last winter, sheep farmers would be specially interested in the investigations undertaken to affect a cure of this disease by the use of extract of Male Fern, B.P. Mr. Montgomery gave results of tests last winter on 90 flocks, representing an aggregate of 7,376 sheep, and the conclusion to which he comes is that Male Fern extract may, with reasonable care, be successfully employed in the treatment of the disease.

The distribution of rookeries in North Wales was the subject

of another chart exhibited. The balances of gains and losses due to the presence of rooks is a matter of speculation among inquirers on the subject. One rarely finds, however, that farmers have a good word to say for them and the damage done at seed time and harvest is undoubtedly great. Similar surveys to that which Dr. Walton has conducted in North Wales would be easy to accomplish, and would provide very valuable data on which to base conclusions on the depredations of the rook.

Whey Research Factory, Haslington, Crewe.—Cheese-making is not now so largely a matter of production on a small scale on the farm, and the presence of numerous large scale cheese factories is an ordinary feature throughout the country. This evolution has rendered the disposal of whey a matter of great difficulty and to provide means for its efficient utilisation has been the subject of investigation for some years.

Whey contains very valuable food materials, but their economic extraction has been hampered by the fact that whey contains 93½ per cent. water, and therefore storage, transportation, and evaporation are expensive. The Whey Research Factory was erected to investigate the possibilities of economic condensation of whey at cheese factories and the extraction of the food material from it. Condensation of the whey to 1% of its bulk has actually been accomplished by a vacuum evaporation process, and three classes of products, viz., lactose, lact albumen, and animal foods, are turned out. The products were on view. Two animal foods—dry whey food and whey paste—both rich in albuminoids—were shown. A statement of the cost of feeding them to pigs showed that the results were as good as those obtained by the usual method of feeding with meals alone. These foods are to be had from the factory at £12 a ton f.o.r. Whether the process of condensation is economical or whether the foods can be produced at the sale price was not disclosed, and the financial results of the methods will be awaited with keen interest by those in the dairy-farming business generally.

National Institute of Agricultural Botany, Cambridge.—A series of maps illustrating the Institute's systems of field trials was worthy of notice, for although its educational value was perhaps not very great, it demonstrated to visitors the care taken to eliminate all possible sources of error in agricultural experiments now being conducted at Research Stations.

Other exhibits included a full working plant for the testing of seeds for purity and germination.

Undoubtedly the most attractive exhibit was that of *The Cheshire School of Agriculture*. Outside the main tent were plots illustrating the many activities of this school. All the plots were well labelled, and it was therefore possible to appreciate the aims of the various experiments, one of the most useful

of which is an attempt to improve the pastures on the millstone grit formation in a smoke area in N.E. Cheshire. A whole farm is being used to test various methods of improvement, and a part of the scheme, which may be said to be novel in trials of this kind, is an endeavour to keep the experiment within the means of the farmer and at the same time to keep a careful note of the finance of the whole investigation.

Another useful demonstration was a pen of pullets from sex-linked crosses, with records of the egg production, in order to show the utility of these crosses.

To deal adequately with the many subjects displayed in the internal part of the exhibit would unduly prolong this report. However, one or two matters deserve special attention. The chart, of which a copy is attached, was of value to farmers and others interested in the economics of arable dairy farming :—

COMPARATIVE RESULTS ON GRASS AND ARABLE FARMS IN SOUTH CHESHIRE,
1922-3, PER 100 ACRES.

	Grass Farm	Arable Farm
No. of Cows	44	62
Total milk, gallons	22,000	36,800
Income from milk	£1,077	£2,277
Labour	£400	£1,100
Manures and seeds	£35	£250
Net output	£625	£675
Net output per man	£193	£77

These figures are based on a wholly grass cheese-making farm of 187 acres and a milk-selling farm of 35 acres, twenty-five of which are arable. The figures serve to illustrate the strength and weakness of both types of holdings.

Two charts which also attracted considerable attention gave the financial results of two dairy farms, one representing the year 1822-3 and the other 1922-3. The figures are given on page 200.

The figures demonstrate in a remarkable manner the commercialisation of farming which has taken place in the 100 years interval, due to the growth of population which has made it necessary to intensify the farming business. A hundred years ago the landlord's bill was the main concern of the farmer, farming was a more self-contained business with no purchases of stock and very little of feeding-stuffs bought. To-day, the expenditure, allowing for difference in size, is over 4 times that of the earlier date, the landlord's rent has sunk to fifth place in

the expenditure, while wages and the feeding-stuffs bill have grown enormously.

A display of ancient and modern dairying and cheese-making equipment and machinery was another pleasing feature of this exhibit, and no one could fail to be impressed by the great strides in efficiency which the application of science and invention has made possible in the dairy industry.

The Principal and Staff of the Cheshire School deserve great credit for the excellence of their exhibit, which succeeded in no small measure in combining the scientific and economic side of their investigations. It must have been gratifying to them that their efforts were rewarded by the evident interest shown by the visitors to the exhibit.

The Institute of Agricultural Engineering, Oxford, in conjunction with The Crop-Drying Company Ltd. had a demonstration exhibit of crop-drying by artificial means in the implement section of the show. Considerable interest was evinced in this demonstration. It was felt, however, that farmers have yet to be convinced that this apparatus is as effective and economical as the natural methods of crop-drying. Its value in wet seasons is undoubtedly considerable, but it is suggested that the apparatus should be used every year irrespective of weather conditions. It would have been a distinct advantage if details of the capital outlay and running cost of the equipment, as well as the additional costs consequent on the need for smaller stacks, had been given.

Agricultural Education exhibits have now been shown at the Society's annual show since 1903, and an examination of the reports since that date reveals the fact that very little, if any, advance has been made in the methods of communicating research investigations to the farmer. Reliance is still placed on the efficacy of a display of samples, charts, literature and personal explanation. While there are better methods available, it is a pity that the present ones still persist. During these years the use of the cinema as an educational device has increased rapidly, and the suggestion is now put forward that the time is ripe for the dissemination of agricultural education by this means, not only at the Society's Show, but at other shows up and down the country. The farming community is then assembled in large numbers, and the projection of educational matter on the screen would, it is considered, apart from the greatly increased facilities afforded for explanation, serve in every way to make Agricultural education a much more fascinating, stimulating and attractive study and amply justify the cost of the equipment.

A. BRIDGES.

Agricultural Economics Research Institute, Oxford.

THE FORESTRY EXHIBITION AT THE CHESTER SHOW, 1925.

As in former years the forestry exhibits were arranged in a special building with outdoor space near by for gates, fencing, tree guards and living trees. Six competitive classes were arranged for planks of home-grown timber, but exhibits were only made in four, whilst the competition was not very keen. The chief exhibitors were the Earl of Powis, Lord Harlech, Lord Penrhyn, Colonel Samuel Sandbach, the Dinam Estates Company, and Capt. J. M. Naylor. Most of the planks sent by the Earl of Powis were of outstanding merit and he was placed first in Classes 1 and 2, and second in Class 4. In the last-named class he exhibited five fine planks of Douglas Fir, Silver Fir, Cedar, *Sequoia gigantea*, and *Pinus Jeffreyi*, the last named being the narrowest with a width of 2 feet 11 inches. Had the number of planks in the class been limited, the quality of the timber would have placed this exhibit first, but the great variety of planks staged by Capt. Naylor just gained the major number of points. Other prize-winners in these classes were Lord Penrhyn with one first and two seconds, and Lord Harlech with one second.

Unfortunately all the timber exhibited in these classes appeared to have been cut from park, hedgerow, or garden trees, and there was nothing to demonstrate the possibilities of the several species when grown under forest conditions, and a class or classes for forest-grown timber might be worthy of consideration, for after all the object of these exhibitions is to demonstrate the practicability of producing at home, timber equal in quality to that imported from other countries, and this can be better done by exhibiting timber from forest-grown trees than from isolated specimens. At the same time a better impression would be made were the Council to insist upon the more careful preparation of specimens, *i.e.* squaring the ends of planks in order that they may stand erect, sawing all to a uniform length, and giving a better finish to planed surfaces. These are all points that appeal to an uninformed public.

The non-competitive exhibits were of considerable interest and there appeared to have been a genuine effort to get away from the all-too-common abnormal growths and other unimportant objects that often form a feature of Forestry Exhibitions. The best group was that exhibited by H.M. Forestry Commissioners. It filled several bays and included an exhibit illustrative of seven ages in the life of an Oak. Commencing with the seedling, the life history was carried through to mature

timber cut into waggon scantlings. The scantlings were sent by a commercial firm and worthily represented the quality of well-grown British Oak. There were also models of an aerial wire-rope-way as used by the Commission for carrying timber across the Wye; a charcoal kiln; and a wood distillation plant with samples of the distillates. Relief maps of portions of the Crown Forests of Dean and Tintern Woods were exhibited with maps indicating the position and areas of the Commission's activities during the last five years. Specimens illustrating various stages in the production of artificial silk from spruce logs to manufactured articles created a good deal of interest. A wide selection of tool handles made from coppice wood was of considerable educational value. The exhibit was awarded the gold medal.

The National Museum of Wales, Cardiff, filled two bays with a miscellaneous collection, including photographs of fine trees grown in Wales, herbarium and timber specimens of various kinds of trees, Aspen and other woods for the manufacture of matches and match-boxes, various stages in the manufacture of artificial silk, from logs of Spruce and Poplar to a finished blouse and a pair of stockings; paper-making from wood pulp and other objects.

From the Forestry Department of the University College of North Wales was sent a dendograph, an instrument for making a continuous record of the changes in diameter of a tree, together with a chart showing the daily changes in the diameter of a Douglas Fir throughout the growing season of 1924 and part of 1925, together with temperature and rainfall records. Also a series of sections showing the mean diameter at five yearly intervals of two stems of Douglas Fir 35 and 40 years old respectively. A plan of the Cairiog Experimental area attached to the College was also shown. This and the previously described exhibit were awarded silver medals.

In the non-competitive section interesting exhibits were also made by the Hon. N. Orde Powlett, miscellaneous exhibits including coloured photographs; Sir Gerald Vincent Corbet, very good cleft fence pales and shingles; Mr. W. Craven Llewelyn, herbarium specimens, etc.; the Margam Estate, South Wales, miscellaneous collection; Messrs. Little & Ballantyne, Carlisle, examples of young trees; the Duke of Westminster, specimens of timber showing the effects of creosote; Mr. Russell Morrison, Morrison's Patent Universal Transplanter for Forest Tree Seedlings; Messrs. Trewhella Bros. Pty, Ltd., monkey winch tree and stump puller with photographs showing the machine at work.

Mr. Coltman-Rogers, the senior Steward of the Forestry Section, contributed an honorary exhibit of scientific interest.

This included numerous specimens of new Chinese Conifers from his famous collection at Stanage Park. Conspicuous amongst them were branches and foliage of the rare Chinese Silver Firs, *Abies Forrestii*, *A. recurvata*, and *A. Faxoniana*; an interesting Chinese Spruce, *Picea asperata*, with its varieties *ponderosa* and *notabilis*; cones produced at Stanage Park by some of these trees, and others contributed by Professor Sargent of the Arnold Arboretum. There were also cones produced at Stanage Park of the new Chinese Larch, *Larix Potaninii*. Mr. Coltman-Rogers also exhibited photographs of trees taken in Trinidad and Jamaica, a small collection of forestry tools and accessories, and several fungus diseases and insect pests harmful to forest trees.

Outside Messrs. Dicksons, Ltd., Chester, were awarded a silver medal in Class 15, for a very excellent collection of ornamental trees, chiefly Conifers. Unfortunately their names were not in all cases correct.

The classes for gates were well filled and some considerable difficulty was found in awarding the medals. Eventually in Class 7 for an Oak field gate, Major Robert Barbour was placed first and the Earl of Powis second. In Class 8, for a field gate of any other home-grown timber or combination of timbers, the Earl of Powis was placed first and the Dinam Estates Company second. For a wicket or hunting gate only one medal was offered: this was won by Major Robert Barbour. A bronze medal might well be offered in this class, for it attracted numerous competitors.

Class 10 for a tree guard attracted numerous entries, but both medals were awarded to the Earl of Powis. Several of the tree guards were too elaborate for general use, whilst some of the timber used was too weak for use in places to which powerful animals have access.

Class 11 for fencing attracted a number of entries which were difficult to judge, for they were of distinctly different types. Eventually both medals were awarded to the Dinam Estates Company for two types of strong, serviceable fencing. The fences exhibited by the Liverpool Corporation Waterworks Committee and by Sir Gerald Vincent Corbet, Bart., the former of split Larch and the latter of Ash, had much to commend them for woodlands and temporary work.

Classes 12, 13 and 14 did not fill. Messrs. Christy & Penny, Ltd., attracted many visitors by their petrol-driven "Wade" saw which was engaged in cutting transverse slabs from an Elm log.

Below is a list of the official awards:

COMPETITIVE CLASSES.

CLASS 1.—SPECIMENS OF OAK, ELM, ASH, AND BEECH TIMBER.

I. *Silver Medal*.—The Earl of Powis, Powis Castle, Welshpool.

II. *Bronze Medal*.—Lord Penrhyn, Penrhyn Castle, Bangor.

H.C.—Lord Harlech, Brogyntyn, Oswestry.

CLASS 2.—SPECIMENS OF LARCH, SPRUCE, AND SCOTCH PINE TIMBER.

I. *Silver Medal*.—The Earl of Powis, Powis Castle, Welshpool.

II. *Bronze Medal*.—Lord Penrhyn, Penrhyn Castle, Bangor.

CLASS 3.—SPECIMENS OF ANY OTHER SORT OF HARD WOOD OR BROAD LEAVED TIMBER.

I. *Silver Medal*.—Lord Penrhyn, Penrhyn Castle, Bangor.

II. *Bronze Medal*.—Lord Harlech, Brogyntyn, Oswestry.

CLASS 4.—SPECIMENS OF ANY OTHER SORT OF CONIFEROUS TIMBER.

I. *Silver Medal*.—Captain J. M. Naylor, Leighton Hall, Welshpool.

II. *Bronze Medal*.—The Earl of Powis, Powis Castle, Welshpool.

H.C.—Lord Penrhyn, Penrhyn Castle, Bangor.

CLASS 7.—OAK FIELD GATES FOR FARM USE.

I. *Silver Medal*.—Major Robert Barbour, Bolesworth Castle, Tatton-hall, Chester.

II. *Bronze Medal*.—The Earl of Powis, Powis Castle, Welshpool.

H.C.—Dinam Estates Co., Llandinam, Mont.

CLASS 8.—FIELD GATES FOR FARM USE, OF ANY OTHER HOME-GROWN WOOD.

I. *Silver Medal*.—The Earl of Powis, Powis Castle, Welshpool.

II. *Bronze Medal*.—Dinam Estates Co., Llandinam, Mont.

CLASS 9.—WICKET OR HUNTING GATES.

I. *Silver Medal*.—Major Robert Barbour, Bolesworth Castle, Tatton-hall, Chester.

H.C.—The Earl of Powis, Powis Castle, Welshpool.

H.C.—Lord Toller-mache's Trustees, Estate Office, Bunbury, Cheshire.

CLASS 10.—TREE GUARDS.

I. *Silver Medal* and II. *Bronze Medal*.—The Earl of Powis, Powis Castle, Welshpool.

CLASS 11.—FENCING OF HOME-GROWN WOOD.

I. *Silver Medal* and II. *Bronze Medal*.—Dinam Estates Co., Llandinam, Mont.

H.C.—Sir Gerald Vincent Corbet, Bart., Acton Reynald, Shrewsbury.

H.C.—Liverpool Corporation Waterworks Committee.

CLASS 15.—NURSERYMEN'S COMPETITION FOR BEST EXHIBITS OF RARER SPECIMEN AND ORNAMENTAL TREES.

I. *Silver Medal*.—Dickson's Nurseries, Ltd., Chester.

NON-COMPETITIVE EXHIBITS.

Silver Medal.—Department of Botany, National Museum of Wales, Cardiff.

Bronze Medal.—The Hon. N. Orde Powlett, Bolton Hall, Leyburn, Yorks.

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H.C.—Sir Gerald Vincent Corbet, Bart., Acton Reynald, Shrewsbury.

H.C.—W. Craven Llewelyn, Clydach, Glam.

Special Medal given by the R.A.S.E. for the best general collection of exhibits in the competitive and non-competitive sections was awarded to :—

His Majesty's Forestry Commissioners, 22, Grosvenor Gardens, London, S.W.1.

Reserve :—Department of Botany, National Museum of Wales, Cardiff.

W. DALLIMORE.

Royal Botanic Gardens,
Kew, Surrey.

REPORT OF THE JUDGES ON THE PLANTATIONS COMPETITION HELD IN CONNECTION WITH THE CHESTER SHOW, 1925.

OWING to Major Caccia, who was originally appointed one of the Judges, having found himself unable to act, some delay took place in starting the itinerary. A further difficulty was experienced in the fact that the closing date of entries had to be postponed owing to the small number coming forward, but eventually the number of entries proved much larger than usual. One difficulty the judges experienced was the fact that a very large area was included in the district which was eligible for competition, and not only were many of the estates widely separated, but on some of the single estates plantations entered were at wide distances apart. If the Judges might venture upon a recommendation they would suggest that the area for future competitions, especially those in well wooded districts, be considerably restricted. This suggestion is made less for the sake of the judges than for the sake of the entrants, as the experience this year was that landowners who entered plantations are extremely keen to hear the judges' actual discussion in the woodlands, and to secure such advice as they may be able to get, and they put themselves to considerable trouble to be present at the actual judging. Their agents and foresters were also, in every instance, keen to discuss points. When the area is large it proves impossible to give definite dates and times of arrival, and the landowners and their representatives are often put to considerable inconvenience by waiting, or in some cases being preceded by the arrival of the judges. It should be emphasised that in all cases in the present competition the landowners and their agents and foresters put themselves to very great trouble to accommodate themselves to the judges' times, and in many cases put themselves to great inconvenience

to meet them. The Judges have to offer a further criticism of the rules, viz. the paragraph which refers to the desire and intention of the Council that plantations should be judged in their normal condition of management. They found in some cases that owners had deliberately postponed the cleaning, etc., of the woods in case they infringed this regulation. The Judges are also of opinion that it is perfectly legitimate for an owner to give some special attention to a plantation which he has entered for show or competitive purposes, as is done in the case of all exhibits at agricultural and other shows.

There were many notable features in the woodlands which were examined. One was that in some cases very young woodlands of not more than one or two years' growth from date of planting had been entered. In the case of such plantations, it is impossible to give an estimate of their value or even of their prospects of development. Another point to which attention should be called is that landowners found themselves in considerable difficulties in stating the exact cost of plantations, and the Judges were obliged to rather discount this particular regulation, as without a very complicated system of costings and book-keeping, it is clear that landowners cannot give a definite statement. In some cases the Judges used their discretion and eliminated some young plantations on estates where more than one of the same class was entered, and substituted others in different classes which they saw in their itinerary. The most striking feature of the whole competition was the extraordinary extent to which Douglas Fir had been planted in Wales within recent years. There is perhaps a considerable danger in the too extensive planting of one species, which is probably greater in the case of Douglas Fir than in any other. In the management of these plantations, the system seems to prevail by which pruning is done in a way which cannot be approved. Both Judges are agreed on the fact that in the successful rearing of Douglas Fir pruning is necessary, but it ought to be done by cutting the lower dead branches close in to the main stem with as clean a cut as possible and not leaving a snag of 6 in. or so long, as such a method leaves a large number of dead or black knots in the timber which is subsequently laid on by the main trunk. It was pointed out, when attention was called to this fact, that it would be easy to re-prune, but it is obvious that such a method merely doubles the cost. The Judges are strongly of opinion that a fine pruning saw is more effective than a bill-hook. Numerous plantations had suffered considerably through thinnings being postponed too long. This resulted in the trees being drawn up too much and the crowns being too small. The plantations consequently suffered loss of increment.

It is impossible to mention all the good points of the plantations inspected, but special mention should be made of the Leighton Hall Estate of Captain J. M. Naylor which secured the Gold Medal for the best plantation. This plantation, which is 25 acres in extent and thirty-seven years of age, consists of mixed species of Ash, Larch, Spruce and Sycamore. The Judges had no hesitation in making this award. The Ash is now the main crop and some are nearly 100 ft. high, while many are 70 ft. without a branch. The trees contain on an average 17 cu. ft. The Judges consider this one of the best examples of mixed woods seen. It must have received careful and practical management in its earlier stages. The Judges are of opinion that it is in need of judicious thinning now.

Considerable difficulty was experienced in awarding the Society's Special Gold Medal for the best managed estate as a whole as they differ so greatly in different places, but the final award was given to the Earl of Powis for the Powis Castle Estate, as this showed evidence of good present management as well as systematic management in the past.

The most notable trees on estates were those on the Powis Castle Estate, and also the Leighton Hall Estate. Gigantic Douglas Fir and other conifers, and also broad-leaved trees, testify to the capacity of the district for growing timber. A similar demonstration is seen in the plantations of the Dinam Estates Company, whose Governing Director is Mr. David Davies, M.P. As regards variety of well-grown trees, special mention should be made of the estate of Colonel Sandbach at Abergele, and of Major Barbour at Bolesworth Castle. On both estates very extensive collections of well-grown exotic and native trees were to be seen. These again give indications as to the timber-growing capacity of the district.

On the whole some specimens of excellent management were to be found. The main fault, as stated above, is to be found in the question of pruning and thinnings. The Judges wish to again express their thanks to those who entered the competition and who provided every facility for the carrying out of the work, which was undertaken under somewhat difficult circumstances. The Judges received special assistance by the kindness of Mr. Trench of the Penrhyn Estate Office, who lent the estate forester, Mr. Ferguson, who acted as guide and enabled the judging to be done in a much shorter time than would have been the case otherwise.

The official awards are as follows :—

HARDWOODS.

CLASS I.—Plantations of less than Ten Years' Growth from date of Planting Silver Medal.—Lord Penrhyn, Penrhyn Castle, Bangor.
Bronze Medal.—Lord Tollemache's Trustees, Bunbury, Tarporley.

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CLASS II—*Plantations which have undergone a First Thinning* No entry

CLASS III—*Plantations which have been Thinned Twice or Oftener*
Silver Medal—Dinam Estates Co, Llandinam, Montgomery.
Bronze Medal—Lord Penrhyn, Penrhyn Castle, Bangor.

CONIFERS

CLASS IV—*Plantations of less than Ten Years' Growth from date of Planting*
Silver Medal—Sir Watkyn W Wynn, Bart, Wynnstay, Ruabon
Bronze Medal—Lord Tollemache's Trustees, Bunbury, Tarporley

CLASS V—*Plantations which have undergone a First Thinning*
Silver Medal—(No entry worthy)
Bronze Medal—Dinam Estates Co, Llandinam, Montgomery
Bronze Medal—Liverpool Corporation (Waterworks Committee)

CLASS VI—*Plantations which have been Thinned Twice or Oftener*
Silver Medal—The Dinam Estates Co, Llandinam, Montgomery
Bronze Medal—Major Robert Barbour, Bolesworth, Tattenhall, Chester

MIXED PLANTATIONS OF HARDWOODS AND CONIFERS.

CLASS VII—*Plantations of less than Ten Years' Growth from date of Planting*
Silver Medal—H S Williams Thomas, Parc Postyn, Denbigh.
Bronze Medal—Captain J M Naylor, Leighton Hall, Welshpool

CLASS VIII—*Plantations which have undergone a First Thinning*
Silver Medal—Capt W Best, Vivod, Llangollen
Bronze Medal—Lord Justice Bankes, Soughton Hall, Northop, Flintshire

CLASS IX—*Plantations which have been Thinned Twice or Oftener*
Silver Medal—Captain J M Naylor, Leighton Hall, Welshpool
Bronze Medal—Colonel S Sandbach, Hafodunos, Abergelle.

CLASS X—*Plantations of not less than Two Acres, consisting of Douglas Fir, Sitka Spruce, Japanese Larch, Corsican Pine, or any other rarer Conifer, planted not less than Five Years*
Silver Medal—Major Robert Barbour, Bolesworth, Tattenhall, Chester
Bronze Medal—H W Buddicom, Penbedw, Nanneich

CLASS XI *For the best Managed Woodlands on Estates of not less than 1,000 Acres in Area*
Special Medal—The Earl of Powis, Powis Castle, Welshpool
Silver Medal—Captain J M Naylor, Leighton Hall, Welshpool
Bronze Medal—Capt W Best, Vivod, Llangollen

NURSERIES COMPETITION

Silver Medal—Lord Penrhyn, Penrhyn Castle, Bangor
Bronze Medal—Captain J M Naylor, Leighton Hall, Welshpool

THE ROYAL ENGLISH ARBORICULTURAL SOCIETY'S GOLD MEDAL FOR THE BEST SINGLE PLANTATION

Captain J M Naylor, Leighton Hall, Welshpool

W R BROWN } Judges
W DAWSON }

REPORT OF THE JUDGES ON THE ORCHARD AND FRUIT PLANTATION COMPETITION, 1925.

*(Restricted to the Counties of Essex, Suffolk and that part of
Norfolk lying East of the River Ouse.)*

CLASSES.

1. For the best managed orchard or orchards of standard or half-standard fruit trees of not less than 8 years growth on uncultivated ground, being not less than 3 acres and not more than 10 acres.

2. For the best managed orchard or orchards of standard or half-standard fruit trees of not less than 8 years growth on uncultivated ground, being over 10 acres.

3. For the best managed plantation of fruit trees of not less than 8 years growth on cultivated ground, being not less than 2 acres and not more than 5 acres.

4. For the best managed plantation of fruit trees of not less than 8 years growth on cultivated ground, being over 5 acres.

In the above classes trees may include all or any of the following varieties : Apples, Pears, Plums, Damsons, Cherries. In Classes 3 and 4, trees may be of any height.

5. For the best managed plantation of bush fruit of not less than 4 years growth, being not less than 2 and not more than 5 acres.

6. For the best managed plantation of bush fruit of not less than 4 years growth, being over 5 acres.

7. For the best managed plantation of strawberries of any age, being not less than 1 acre and not more than 3 acres.

8. For the best managed plantation of strawberries of any age, being over 3 acres.

Prizes of, first, silver medal, and second, bronze medal, were offered in each class.

Judging commenced in Essex on June 8 and was completed in Norfolk on June 12. The weather continued fine throughout the week and we were able to keep well up to time with the arrangements made by the Secretary of the Federation of British Growers, Mr. E. C. Boughton, who was responsible for the exceedingly well-planned itinerary.

The entries numbered 32:

Class 1	.	.	.	.	.	.	.	.	1
" 2	.	.	.	.	.	.	.	.	2
" 3	.	.	.	.	.	.	.	.	5
" 4	.	.	.	.	.	.	.	.	7
" 5	.	.	.	.	.	.	.	.	5
" 6	.	.	.	.	.	.	.	.	7
" 7	.	.	.	.	.	.	.	.	1
" 8	.	.	.	.	.	.	.	.	4

The method of scoring marks was as follows :

	Points.
(a) System of planting	15
(b) Pruning and shape	10
(c) General vigour and productiveness	15
(d) Freedom from pests and diseases	15
(e) Land cultivation, having regard to the profitable use of the ground	15
(f) Selection of varieties	5
(g) Economical and commercial aspect	15
(h) General appearance	5
(i) Fencing and protection	5

Total 100

In the case of strawberry plantations, items (b) and (c) were treated as vigour and productiveness.

In making the following awards we were unanimous in our selection of the winning exhibits :

CLASS 1. *First.* Col. B. J. Petre, Westwick House, Norwich. A plantation of half-standard apples 18 ft. by 18 ft. square, 15 years planted. The land has been under cultivation for a number of years, but is now sown with forage crops for pig grazing ; the plantation being divided up into 1-acre pens. Allington Pippin was most prominent in this orchard, hard pruning of this variety producing good results. Worcester Pearmain and Lord Derby were not up to such standard, canker being prevalent in both varieties

CLASS 2. *First.* Col. B. J. Petre, Westwick House, Norwich. A grass orchard of cherries, 30 ft. by 30 ft., planted 1911. The orchard is planted in the poorer soil on this estate, but has cropped heavily. The trees are healthy, vigorous, and of uniform appearance throughout. Chief among the varieties were noted Napoleon, Waterloo, Rivers, and Bigarreau. Attacks of winter moth caterpillar were noticeable in parts of the orchard. We consider more attention might be given to closer grazing with sheep earlier in the season.

Second. The other entry in the class was not, in our opinion, of sufficient merit to make a second award.

CLASS 3. First. Mr. E. Granger, "Appledene," Eastwood, Southend-on-Sea. A well-cultivated plantation of $4\frac{1}{2}$ acres on a 7-acre holding. The trees are closely planted, but are of good shape and well managed under these conditions. The land is very clean and in an excellent state of cultivation—scoring maximum points under this head. There were patches of Purple Aphis and Red Spider in apples.

The crop outlook here was extremely good, with the exception of pears. Cox's Orange Pippin was most promising.

Second. Mrs. J. C. Blofeld, Hoveton Fruit Farm, Wroxham, Norfolk. A 5-acre plantation of half-standards 36 ft. square interplanted with bush trees at 18 ft. square, 14 years old. The half-standards consist of Bramley, Blenheim Orange, and Annie Elizabeth, the bush trees—Lord Derby and Lanes. Bramley Seedling was outstanding in vigour, shape, and crop, but all trees were of excellent uniformity as regards pruning and management. Apple Mildew was prevalent in Lord Derby and Lanes, and again Red Spider was noted.

Cultivation was fair, the soil round the trees having been mulched with "marsh fodder," which appears to have introduced a quantity of dock and other weed seed to the soil.

The entry at Roydon, Essex, in this class, was disqualified, as the land was not under cultivation as specified in the schedule.

CLASS 4. First. Hollesley Bay Labour Colony, Hollesley, Suffolk. A fruit farm of 200 acres in a high state of cultivation and productiveness. Conditions here, especially in regard to soil, are of a different nature than on any farm inspected in the Competition. The soil is very light and sandy—almost pure sand in parts. Tree growth is consequently very much restricted, and the close planting of 12 ft. by 12 ft. and 12 ft. by 6 ft. is suited to these conditions. In spite of the dwarfing effect, however, the foliage at the time of our visit was of very striking appearance in health and vigour. Bramley Seedling, Lord Derby, Cox's Orange, and Lanes, were all bearing crops above the average. It is worthy of mention that Bramley has cropped heavily annually on this farm for a number of years.

To the frequent working of this sandy soil, thorough attention to spraying and the probability that the water table is high, we attribute largely the healthy appearance of the trees and the crops obtained. Cultivation is by tractor-drawn cultivators, some several inches of the surface being worked into a dust mulch—there being ample evidence in the leaf alone of the moisture thus conserved. Brown Rot was observed in apples in parts of the plantation, but other diseases and pests had been successfully controlled by early attention to spraying. Although it might appear that abnormal conditions exist, we are confident

that the economical and commercial aspect of this fruit farm is all that could be desired.

Second. Mr. W. E. Wadley, Bovingtons Farm, Hatfield Peverel, Essex. A mixed planting of 30 acres, of apples, pears, plums and cherries as top fruit, with bush or soft fruits under. There are well-managed trees of Blenheim Orange, Conference pears, Rivers, Czar and Victoria plums, and Morello cherries. Of pests, leaf-eating caterpillars had done considerable damage in places, more so among cherries, but generally health and vigour over the whole farm was of a high standard of quality. Spraying had been well done and cultivation clean. Crop over all varieties fair.

Reserve. Col. B. J. Petre, Westwick House, Norwich. A large holding of mainly standard and half-standard apples, pears, and plums. Of apples, Lord Derby is evidently not doing well here. Canker was very rife in both this and Worcester Pearmain. Allington Pippin was outstanding in health and bearing. Cultivation has recently been discontinued in favour of pig grazing.

Highly Commended. Mr. W. Lawrence Taylor, Galleywood, Chelmsford. A 12-acre plantation planted in 1912 at the 12 ft. by 12 ft. distance. The trees are of good shape and uniformity. Pruning has been done on the hard-spur principle for some time. Of pests and diseases, Woolly Aphis, Sawfly, and Mildew were a good deal in evidence in parts of the plantation—the more serious were the attacks of Sawfly as noted in other plantations in the Chelmsford district. Pigs are grazed under the trees in suitable size pens, and we suggest that, where there is a lack of natural grasses and weeds, better results might be obtained if quick-growing forage crops were sown for grazing.

CLASS 5. *First.* Major E. H. Evans-Lombe, Marlingford Hall, Norwich. A 4-acre plot of black currants, part 5 years' and part 4 years' growth. A portion are planted 7 ft. by 3½ ft., and the remainder 6 ft. by 3 ft. The variety, except for a few Boskoop, is of the French type, selected and raised from soft wood cuttings. A close examination of the plot revealed two reverted bushes, but the general health and vigorous nature of the whole piece was extremely good, and the uniform appearance of the crop very marked. The bushes produced 2 tons per acre in 1924, and were again carrying nearly that amount.

We consider the true selection of the stock or strain has much to do with this uniformity of weight per bush. Carbo washes had been applied with beneficial results. The soil in this plantation is on the heavy side in parts, and not considered so good as in other currant-growing districts in the county. For the first dressing of farmyard manure, 4 tons had been applied, followed by 10 tons in the second year and 15–20 tons per acre

the third year. A well-managed plantation of much promise.

Second. Licut.-Col. G. E. Todd, Mundham House, Brooke, Norwich. A $3\frac{1}{2}$ -acre plot consisting of 3 acres black currants and $\frac{1}{2}$ acre raspberries. The black currants (Seabrooks), planted 6 ft. by 6 ft., were in a good state of vigour and fair productiveness, although we would suggest an increase in the quantity of bulky organic manures applied. Aphis attacks were common in places.

Of raspberries, the variety Lloyd George was of outstanding merit. The canes had been kept well thinned to suitable distances, as is necessary with this variety. The inexpensive method of supporting the canes with one strand of Government wire was unique. The crop was promising and above average.

Reserve. Col. B. J. Petre, Westwick House, Norwich. Three acres of red currants, planted 6 ft. by 6 ft. under standard apples. Hard pruning adopted with good results. The bushes were bearing a very heavy crop, and we were given to understand they had done so annually for some years.

Cultivation was neglected, but frequent applications of liquid manure had compensated this to a marked degree and no doubt produced these abundant and highly profitable crops.

CLASS 6. With one exception, all entries in this class consisted of black-currant plantations.

First. Mr. George S. Durrell, West End Lodge, Aylsham, Norfolk. Five acres of Seabrooks (owner's own selected strain) and Boskoop black currants, on the 8 ft. by 4 ft. distance, planted 1921 as cuttings. The healthy vigour and productiveness of this batch of bushes was an outstanding feature of our tour of the various districts. The bushes were bearing a heavy crop of very fine fruit, estimated at $3\frac{1}{2}$ tons per acre.

The land was exceptionally clean and in a high state of cultivation, having received heavy dressings of farmyard manure from the owner's dairy herd. Carbo wash was applied early in January. A credit to the owner's management. The entry gained 98 points from a possible 100.

Second. Col. B. J. Petre, Westwick House, Norwich. Seven acres, Baldwin, French, and Boskoop black currants, 5 years old, 6 ft. by 3 ft. The Boskoop bushes were over 6 ft. in height, and we consider a little too closely planted for this variety. We would suggest another 1 ft. 6 in. to 2 ft. between the rows. Cultivation and manuring had been kept up to a very high standard. The bushes were bearing a lighter crop, and some running off was noticed in Boskoops. The piece, however, had averaged a crop to the extent of 4 tons per acre for the two previous years. On this farm the selection of true strains of the different types has been closely followed for some years, the

freedom from rogues and the general uniform appearance of the various varieties being the result of such treatment.

Reserve. Mr. H. Callow, Neatishead, Norfolk. Black currants (French), 8 ft. by 4 ft. plant. These bushes were of vigorous growth, the land well cultivated and in good condition. The crop was, however, light, irregular, and in some cases only the upper parts of the branches were bearing fruit. Some reversion was observed.

Highly Commended. Messrs. Tyler Bros., Hall Farm, South-repps, Norwich. Eight-acre plantation of black currants, planted 6 ft. by 4 ft. Varieties included Naples, French, Boskoop, and Baldwin. The two last named were superior in productiveness and general appearance to the others. Cultivation very good. The prevalence of caterpillar was noted.

CLASS 7. *First.* Mr. Charles J. Page, Old Rectory Fruit Farm, Goldhanger, Maldon. A 2-acre plot of strawberries. A little irregular in vigour and uniformity of growth, the plant was a little packy at one end with some gaps and blind plants. Spring cultivation might have been continued later with benefit to the plants. This was the only entry in the class.

CLASS 8. *First.* Mr. W. E. Wadley, Bovingtons Farm, Hatfield Peverel, Essex. A 30-acre field of Royal Sovereign and Paxtons strawberries, varieties which apparently suit this neighbourhood. The health and vigour of the plants was very good considering the unsuitable and trying conditions experienced during the winter months for strawberries generally.

Some red plant and occasional weak spots were noticeable. Cultivation and littering well done. Commercial aspect very good.

Second. Mr. H. G. Evans, Pleyhill, Hatfield Peverel, Essex. About 4½ acres Royal Sovereign strawberries under bush apple trees. Strong and healthy plants. One interesting piece contained alternate rows of autumn and spring planting. Cultivation very good, littering perhaps a little thin. A few gaps caused by red plant in parts of the plantations.

A portion of the strawberries were single rows between bush apples, which in our opinion, considering the young age of the trees, left too much unnecessary vacant land, and two rows might have improved the economical and commercial aspect—otherwise a promising batch of strawberries.

The marks gained by each competitor were as follows :

Class	No		Award	a	b	c	d	e	f	g	h	i	Total
I	1	Col. B. J. Petre .	I	15	8	12	10	12	5	13	3	5	83
II	3	Col. B. J. Petre .	I	15	8	13	13	12	5	14	4	5	89
	2	J. B. Chevallier .	No Award	12	7	5	10	0	1	5	1	1	42
III	5	E. Granger .	I	12	10	14	12	15	4	13	4	4	88
	4	Mrs. J. C. Blofeld	II	12	10	12	12	13	5	12	4	4	84
	6	Col. B. J. Petre .						Withd		r	a	w	n.
	7	Lt.-Col. G. E. Todd		12	10	10	12	13	5	12	4	4	82
	8	Major J. E. B. Wells					Disqual	ified	(uncul	tivated)			
IV	11	Hollesley Bay Lab. Col.	I	12	9	15	14	15	5	15	4	4	93
	15	W. E. Wadley .	II	12	10	12	14	15	4	14	5	4	90
	13	Col. B. J. Petro .	Res.	12	11	11	10	10	5	14	4	4	81
	14	W. L. Taylor .	H C.	12	10	10	12	8	5	14	4	4	79
	10	Mrs. Blofeld .		12	11	10	9	9	4	12	4	4	75
	9	Lt.-Col. R. C. Batt		12	12	10	8	9	4	12	3	4	74
	12	C. J. Page .		10	10	11	9	9	4	12	3	4	72
V	17	E. H. Evans Lombo	I	14	10	12	14	15	5	14	5	5	94
	20	Lt.-Col. G. E. Todd	II	1	8	10	14	14	5	12	4	4	85
	18	Col. B. J. Petro .	Res.	12	8	10	14	8	5	10	3	4	74
	16	Mrs. Blofeld .		12	9	8	12	10	5	9	4	4	73
VI	23	G. S. Durrell .	I	14	10	15	15	14	5	15	5	5	98
	25	Col. B. J. Petro .	II	12	10	14	15	14	5	15	4	5	94
	22	H. Callow .	Res.	12	10	12	14	14	5	14	4	5	90
	26	Tyler Bros. .	H C.	12	9	12	14	14	4	12	4	5	86
	21	Lt.-Col. R. C. Batt		12	9	12	12	13	5	12	4	5	84
	24	C. A. Mileham .		12	8	10	12	12	5	10	4	5	78
	27	W. E. Wadley .		10	8	10	9	10	5	10	3	5	70
VII	28	C. J. Page .	I	15	20	10	--	7	5	10	6		73
VIII	32	W. E. Wadley .	I	15	20	12	14	5	15		8		89
	31	H. G. Evans .	II	14	20	10	14	5	15		6		79
	30	J. B. Chevallier .		15	18	10	12	3	12		7		77
	29	Mrs. Blofeld .		15	18	12	12	3	10		5		75

GENERAL.

The apple crop as observed over the whole of the plantations and orchards visited we consider good, although not on the heavy side. Of varieties Bramley Seedling, Allington, Blenheim, and Cox's Orange Pippin were mostly prominent in both quantity and promise of good quality fruit. From our observations it appears likely to be a good year for Cox's Orange in the Eastern Counties.

Pears, except for a few isolated fair crops of Conference, were practically a complete failure, owing in some cases to the ravages of the pear midge.

Plums, after such a promising outlook at the blossoming period, we regret to report are a disappointing crop. There were noted some fair crops of Czars and Victorias, but on the majority of trees everywhere we went the fruit had dropped.

Of the soft fruits the few raspberries met with were bearing well, but had the appearance that moisture would be required to swell the fruit.

Black currants, to which most of our attention in the bush-

fruit classes was confined, were generally a light crop, probably half of the 1924 average. Individual plantations in Norfolk, nevertheless, were carrying a heavy weight of fruit. Running off had accounted for much of the loss in other places—the bunches showing signs of having been reduced of half their berries. In mentioning Norfolk our attention is drawn to the development of black-currant culture in this county—with results unattained elsewhere.

We feel that great credit is due to those growers and the County Horticultural Adviser who have worked co-operatively on progressive and scientific lines to develop this important and profitable branch of fruit-growing. We were astonished in several instances to meet with the amount of skilled management and high standard of culture such as was being given to this crop. Further, we wish to congratulate those who have patiently raised by careful selection and roguing many of their own true strains of varieties, with results that are at once striking.

Strawberries were a small entry in the classes confined to this fruit.

Old plantings had suffered considerably from the effects of a wet winter and early spring, and showed signs of loss of vitality. Weak crowns and patches of "red plant" were noticeable. The season pointed to a short one.

Young plants of Royal Sovereign were, on the whole, very good. We consider this variety is more suitable to the Norwich area than Paxton, from what we observed when comparing the two varieties side by side.

CULTIVATION AND PESTS CONTROL.

As far as the cultivation of plantations is concerned, we found that there is an increasing tendency to run pigs under the trees in place of clean cultivation. With this system it would appear that fencing off in small pens of from 1 acre to 2 acres ensures better results and closer grazing of weeds, etc., where, of course, the acreage is not too large to be economically done.

We would suggest the possibilities attached to the system of seeding down and frequent mowing of the grass as a sod-mulch culture.

On the very light soils of East Suffolk the constant working of the surface into a soil mulch is obviously correct to retain moisture in dry seasons. As regards the control of pests and diseases, the use of carbo washes had been general. With pests we found that Aphis and Caterpillar attacks had not been recognized sufficiently early by a few growers to be got under absolute control.

We regret to report the presence of considerable Sawfly in the Essex plantations, and a serious amount of Blossom Wilt in Lord Derby apples near Norwich. In the latter area we were also somewhat surprised to see canker so bad in Worcester Pearmain. Brown Rot was noted among diseases in apples and Victoria plums.

In bush fruits we are pleased to report that the majority of black-currant growers had successfully controlled Aphis and Caterpillar attacks, and in the prize plantations the absence of Reversion and Big Bud is also pleasing.

In conclusion we wish to tender our very best thanks to those gentlemen who kindly provided us with hospitality and entertained us, and also gave much time conveying us to and from railway stations and round to the various farms.

Our thanks are also due to the Competitors who assisted in every way in conducting us round their farms, and to Mr. E. C. Boughton for organizing the tour of inspection.

C. S. SMITH.

A. WHITING.

REPORT OF THE COUNCIL TO THE ANNUAL GENERAL MEETING OF GOVERNORS AND MEMBERS OF THE SOCIETY,

HELD AT THE

ROYAL AGRICULTURAL HALL, ISLINGTON, LONDON, N.,

On WEDNESDAY, December 9, 1925, at 2.30 p.m.

Membership.

1. The Council have to report that the list of Governors and Members has undergone the following changes since the Annual General Meeting on December 10, 1924 : 32 new Governors (including 11 transferred from the list of Members under Bye-law 9), and 1,122 new Members have joined the Society, and 8 Members have been re-instated under Bye-law 14 ; whilst the deaths of 8 Life Governors, 7 Governors, 4 Honorary Members, 90 Life Members, and 175 Members have been reported 1 Governor, 15 Life Members and 55 Members have been struck off the books under Bye-law 12, owing to absence of addresses ; 1 Governor and 218 Members under Bye-law 13, for arrears of subscription ; 5 Governors, 3 Life Members, and 320 Annual Members have resigned.

2. Losses by death include one Trustee and two other Mem-

bers of the Council. Sir J. B. Bowen-Jones, Bart., who was in his 85th year, was the "father" of the Council. Becoming a member in 1867, he was elected to the governing body in 1871, and for more than half a century served the Society in various offices. In different departments of the Annual Show he acted as a Steward on many occasions between the years 1881 and 1914. He took a share in the work of several of the Standing Committees, and was one of the original Members of the National Agricultural Examination Board. For a number of years he was Chairman of the Chemical and Woburn Committee. He was elected a Vice-President in 1905, a Trustee in 1909, and filled the office of President in 1919 for the first Show after the War, at Cardiff, which will be remembered as the most successful of the whole series held up to that time.

3. The late Walter William Chapman joined the Society as a Member in 1881, and was elected a Governor in 1913. He represented on the Council the electoral district of London from 1913 until his decease. As an agricultural journalist, and as a shipper and exporter of live stock, he was well known, and he was an industrious worker in the cause of animal breeding and its improvement. He was secretary of the National Cattle and the National Sheep Breeders' Associations, and was associated with several of the flock book societies.

4. The late C. Howard Taylor first became connected with the Society as a Member in 1888. He had served on the Council since 1918 as one of the representatives of the West Riding of Yorkshire.

5. Amongst other Governors and Members whose loss by death the Society has to deplore are: His Grace the Duke of Rutland, K.G., the Earl of Portsmouth, Viscount Leverhulme, Lord Barrymore, Lord Blyth, Lord Ribblesdale, Lord Roundway, Lord Sheffield, Lord Waleran, Sir R. J. Black, Bart., Sir Bache Cunard, Bart., Sir John F. Dillon, Bart., Sir G. A. C. East, Bart., Sir E. G. B. Palmer, Bart., Sir R. N. Rycroft, Bart., Sir David L. Salomons, Bart., Sir Eyre Coote, Sir H. Rider Haggard, Sir E. A. Hambro, K.C.V.O., Sir Edward E. Pearson, Major Sir H. J. P. Thomas, O.B.E., Mr. William Arkwright, Mr. James Cooper, Colonel F. H. Custance, C.B., Mr. Alfred E. W. Darby, Mr. Edward Drewry, Mr. T. W. Everard, Major J. P. Fell, Mr. W. T. Garne, Mr. Matthew Gray, Mr. John Handley, Mr. Oswald Harrison, Mr. Walter F. Ingram, Mr. C. H. Jolliffe, Señor Alfredo Le Cocq (Honorary Member), Prof. G. D. Liveing, F.R.S. (Honorary Member), Mr. John W. Macfie, Mr. William Parlour, Mr. C. S. Peirse-Duncombe, Mr. E. J. Powell (Honorary Member), Monsieur Henry Sagnier (Honorary Member), Mr. Arthur W. Sutton, Colonel B. T. L. Thomson, Mr. J. H. Toppin and Mr. F. B. Wilkinson.

Numbers of Governors and Members.

6. The above and other changes bring the total number of Governors and Members now on the Register to 13,620, divided as follows :—

293	Annual Governors ;
157	Life Governors ;
10,992	Annual Members ;
2,161	Life Members ;
17	Honorary Members ;

13,620 Total number of Governors and Members as against a total of 13,371 on the Register at the time of the last Annual Report.

Presidency.

7. The Council have unanimously decided to recommend to the Annual Meeting the election of Lord Desborough, G.C.V.O. , as President of the Society, to hold office until the Annual Meeting in 1926.

Changes in the Council.

8. Col. E. W. Stanyforth has been elected a Trustee in the room of the late Sir J. B. Bowen-Jones. Mr. William Harrison has been appointed to fill the vacancy thus created in the list of Vice-Presidents. Owing to his decision to reside abroad, Mr. A. M. Montgomery has resigned his seat as one of the representatives of Scotland.

Annual Election of Council.

9. Members of Council who retire by rotation at the next Annual Meeting are those representing the electoral districts of Group B, which comprises Buckinghamshire, Devon, Durham, Essex, Herefordshire, Leicestershire, London, Nottinghamshire, Rutland, Shropshire, Suffolk, Surrey, Wiltshire, Yorkshire West Riding, and South Wales. Governors and Members in those districts have been communicated with, and the usual procedure is being followed for the election or re-election of representatives for the divisions concerned.

10. Elections are also taking place for the filling of vacancies in Scotland, where Mr. Montgomery has resigned, and in Lancashire owing to the election of Mr. William Harrison as a Vice-President. Governors and Members in Lancashire are also entitled to elect one additional representative, and those in Cheshire two additional representatives, under Bye-law 149.

Dates of Council Meetings.

11. The Council will meet upon the following dates in 1926 : February 3, March 3, March 31, May 5, June 2, July 7 (General

Meeting of Governors and Members in Reading Showyard), July 28, November 3, December 8 (Annual General Meeting at the Royal Agricultural Hall).

Accounts.

12. In accordance with the Bye-laws, the balance-sheet has to be presented for consideration at the Annual Meeting. The Council therefore beg to submit the Balance-sheet, with Statement of Receipts and Payments for the year 1924. These Accounts were published in Vol. 85 of the JOURNAL issued to Governors and Members this year, having been certified as correct by the Auditors appointed by the Members and by the professional Accountants employed by the Society.

Gilbey Lectureship.

13. The Council have agreed to continue Sir Walter Gilbey's Lectureship to the University of Cambridge, and a new current account has been opened at the Westminster Bank styled the "Gilbey Bequest" account representing accumulated income and funds uninvested.

Chester Show.

14. Taken as a whole, few finer exhibitions of the kind can have been brought together than the 84th Annual Show of the Society which took place at Chester from the 7th to the 11th July last. The site at Saltney with its view of the Welsh Hills was most picturesquely situated, and was admirably adapted to the Society's requirements.

15. With the exception of an isolated outbreak of Foot and Mouth disease which occurred in the neighbourhood of Hull in the week preceding the Show, the country had for some time enjoyed a clean bill of health, so that exhibitors were not hampered by restrictions in sending their animals to Chester. With an entry of 1,565, Cattle set up a new record. Entries of Sheep were greater than in the previous year at Leicester, but there was some falling off in the numbers of Horses and Pigs shown.

16. The Implements and Machinery section was of the customary representative character, and most of what may be termed the "side-shows" reached a high standard of excellence, particularly the Horticultural Exhibition, which was generally agreed to have been "better than ever."

17. For the second time, Sir Gilbert Greenall filled the dual rôle of President and Honorary Director. He was also Chairman of the Executive of the Chester Local Committee.

18. His Majesty the King, who was the guest at Knowsley of the Earl and Countess of Derby, honoured the Show with his presence on the second day (Wednesday), travelling by motor to Chester. His Majesty, whose reception was of a most enthusiastic character, made an extensive tour of the Show, seeing exhibits in

almost every department. Cheshire Cheese was the outstanding feature of the Produce section, and the entries, numbering 293, made a magnificent display. These exhibits were inspected by His Majesty who was graciously pleased to accept a cheese made by Mr. and Mrs. Charles Parton, of Haughton, Tarporley, which gained the Championship Cup, value 100 guineas, given by the Cheshire Hunt.

19. A message was subsequently received by the President expressing His Majesty's thanks for the arrangements made for his visit and the pleasure he derived from it.

20. Fine weather prevailed throughout the five days, during which a total of 112,880 persons visited the exhibition, and the accounts to be presented to the Annual Meeting will show a surplus of Receipts over Expenditure amounting to £344 14s. 7d.

21. At the General Meeting in the showyard the cordial thanks of the Governors and Members were tendered to the Mayor and Corporation for their hospitable reception of the Society, and to the Chester Local Committee for their untiring efforts to promote the success of the Show.

Railway Concession.

22. Since 1919 repeated applications have been made to the Railway Clearing House that they would restore to Governors and Members the pre-war privilege of travelling to and from the Show at reduced fare. Application was again made, in connection with the Chester Meeting, in the early part of this year—and again refused. The Railway Companies, however, gave the matter further consideration, and in June an intimation was received from the Railway Clearing House to the effect that the Companies in conference had agreed, as an experiment for the Chester Show, to issue tickets for the double journey (minimum fare 5s.) at a single fare and a third. Every Governor and Member was thereupon supplied with the necessary voucher to secure this privilege. The Council trust that the result of this year's experiment was sufficiently satisfactory to the Railway Companies to induce them to renew the concession to Governors and Members of the Society for future shows.

Plantations and Estate Nurseries.

23. Cheshire and North Wales comprised the area of this year's competition, for which 83 entries were received. The Society's Special Medal for the best managed Woodlands on an estate of not less than 1,000 acres was won by the Earl of Powis. The Gold Medal of the Royal English Arboricultural Society for the best plantation was awarded to Capt. J. M. Naylor, of Leighton Hall, Welshpool.

24. Next year's competition will cover Hampshire, Wiltshire, Dorset, Berkshire. and the Isle of Wight.

Orchards and Fruit Plantations.

25. The area of this competition in 1925 took in Essex, Suffolk and that part of Norfolk lying east of the River Ouse. There were thirty-two entries in the eight classes.

26. Cornwall, Devon and Somerset will be included in the area of the competition of 1926.

27. The Judges' reports on both the Plantations and the Orchards competitions of this year will appear in the next issue of the JOURNAL.

Demonstration Fruit Plot.

28. In order to demonstrate a practical scheme of planting likely to appeal to farmers and smallholders, the Council arranged with Dicksons Nurseries Ltd. to lay out a half-acre plot in the Chester showyard illustrative of (1) a fruit orchard in grass, (2) an orchard under cultivation for bush fruits, (3) the cultivation of soft fruits, and (4) the under-cropping of fruit trees with vegetables. Methods of protecting trees against stock and rabbits were also shown on the plot.

Skilled Labour and Long Service.

29. Through the agricultural societies of Leicestershire, Warwickshire, Rutland and Berkshire, medals and certificates were awarded in February last to farm servants in those counties for proficiency in Ploughing, Hedging, Rick Building, and Thatching, and for Long Service, under the scheme drawn up by the Council in 1924.

30. For the present year medals and certificates are being offered through local societies in Cheshire and North Wales.

Trials of Sugar-Beet Lifters.

31. The Trials organised by the Society took place at Kelham, near Newark, on October 13, on land placed at the Council's disposal by Homegrown Sugar Ltd. There was one entry in the class for machines that will top and lift the roots and separate them from the leaves and crowns, and five of machines that merely loosen the roots, leaving them to be lifted and topped by hand.

32. The awards of the Judges are as under:—

Class 1. No award.

Class 2. 1st Prize (£20), John Cooke & Sons (Lincoln), Ltd., Lindum Works, Lincoln.

2nd Prize (£10), George Stephenson & Sons, Ltd., Trent Bridge Works, Newark.

Reserve, James & Frederick Howard, Ltd., Bedford.

A Special Prize of £20 has been awarded to Messrs. John Fowler & Co. (Leeds), Ltd., for their Cable-operated Beet Lifter.

The Judges' Report on the Trial will appear in the next number of the JOURNAL.

Next Year's Show.

33. The Eighty-fifth Annual Exhibition of the Society will take place at Caversham, Reading, from Tuesday, July 6, to Saturday, July 10.

Judging.

34. At their meeting in July last the Council agreed to discontinue the appointment of Assistant Judges which was tried as an experiment at Chester, and to adopt the principle of single judging. In the case of a breed having very large entries, one judge will be appointed for the males and one for the females.

Prize-List.

35. Including Cups, etc., the total value of the prizes to be offered will be about £16,000, towards which the Reading Local Committee will contribute £1,648. Offers of Champion and other prizes have been received from the following:—Shire Horse Society, Clydesdale Horse Society, British Percheron Horse Society, Hunters' Improvement and National Light Horse Breeding Society, National Pony Society, Shetland Pony Stud Book Society, Shorthorn Society, Hereford Herd Book Society, Sussex Herd Book Society, Welsh Black Cattle Society, Aberdeen-Angus Cattle Society, English Aberdeen-Angus Cattle Association, Argentine Aberdeen-Angus Association, Dun and Belted Galloway Cattle Breeders' Association, Dairy Shorthorn Association, Devon Cattle Breeders' Society, South Devon Herd Book Society, Blue Albion Cattle Society, English Guernsey Cattle Society, English Jersey Cattle Society, British Kerry Cattle Society, Dexter Cattle Society, Co-operative Wholesale Society, Oxford Down Sheep Breeders' Association, Shropshire Sheep Breeders' Association, Hampshire Down Sheep Breeders' Association, Suffolk Sheep Society, Wiltshire or Western Horn Sheep Breeders' Association, Ryeland Flock Book Society, Kerry Hill (Wales) Flock Book Society, Lincoln Longwool Sheep Breeders' Association, Leicester Sheep Breeders' Association, Wensleydale Longwool Sheep Breeders' Association, Kent or Romney Marsh Sheep Breeders' Association, Exmoor Horn Sheep Breeders' Society, National Pig Breeders' Association, British Berkshire Society, Large Black Pig Society, Lincolnshire Curly Coated Pig Breeders' Association, Cumberland Pig Breeders' Association, Wessex Saddleback Pig Society, Welsh Pig Society.

Special Prizes are being contributed in the Poultry section by the Sussex Poultry Club, Columbian Wyandotte Club, British Rhode Island Red Club, British Black Leghorn Club.

Closing of Entries.

36. Intending exhibitors at Reading are reminded that the latest date for receiving entries of horses, cattle, goats, sheep,

and pigs is May 1. Entries of Produce close on May 20 ; entries of Poultry close on May 31.

Applications for space in the Implement, etc., Department must be made not later than March 20.

Schedules and entry forms will be ready for issue early in the New Year.

Show of 1927.

37. The Council have accepted an invitation from the Mayor and Corporation of Newport, Monmouthshire, to hold the Show in that town in the year 1927.

Invitations for 1930 and 1931.

38. A resolution has been unanimously adopted by the Manchester City Council requesting the Lord Mayor to invite the Society to hold their Meeting for 1930 in Manchester. An invitation has also been received from the Corporation of Warwick to hold the Show in that place in 1931, this being the Centenary of the Warwickshire Agricultural Society.

Judges for South American Shows.

39. The following gentlemen were appointed by the Council, at the request of the Argentine Rural Society, to proceed to South America to act as Judges at that Society's Palermo Show, which on this occasion was attended by H.R.H. the Prince of Wales :—

Shorthorn.—W. S. McLaren, Naemoor, Rumbling Bridge.

Hereford.—E. Craig Tanner, Eyton-on-Severn, Cross Houses, Salop.

Aberdeen-Angus and Clydesdale.—D. M. Allen, Ballintomb, Granttown-on-Spey.

Lincoln Sheep, Blackface Sheep and Shire Horses.—F. Arthur Good, Stone Pit House, Potter Hanworth, Lincoln.

Pigs.—R. J. Purvis, Keinton Mandeville, Lydford-on-Fosse, Taunton.

40. The following letter, accompanied by a Silver Medallion, has been received :—

SOCIEDAD RURAL ARGENTINA,
FLORIDA 460,
BUENOS AIRES.

2 September, 1925.

To the Secretary of the Royal Agricultural Society of England.
DEAR SIR,—

On the occasion of the return home of the British Judges who officiated at the Palermo National Show, which opened on the 21st of August, H.R.H. the Prince of Wales honouring us with his presence, the Council over which I have the honour to preside beg to express, through the medium of this letter, our most appreciative gratitude towards the Royal Society of which you are the most capable and active Secretary, for the important

assistance you have rendered us in selecting the experts to judge for us and whose decisions have always given the utmost satisfaction.

We also bear in mind that it is now 22 years since the first British Judges visited our traditional Palermo Show, and by their awards they have shown us how to improve our live stock, which are the descendants of the famous breeds of the United Kingdom.

These good Judges have not limited their efforts to placing the awards; but they have pointed out the defects in our stock, and both in earlier times and later on their advice has been of the utmost assistance to us. They have told us how to do things and have shown us the road to success.

As proof of our remembrance of all this kindness the Argentine Rural Society desire to honour the Royal Agricultural Society of England, and as a token of the friendship which has existed for so many years, they beg your Society to accept the small plaque which will be handed to you by Mr. William S. McLaren.

With my best wishes to you and all the members of the Council of your Society,

I am,

Yours sincerely,

PEDRO T. PAGÉS, *President.*

C. J. VIERA, *Secretary.*

This year's panel of Judges also officiated at the Monte Video show of the Rural Association of Uruguay; and a letter expressing their appreciation and thanks has been received from the President of that body.

Chemical Department.

41. There has been some falling off in the number of samples submitted by members for analysis—the total for the year being 326 as against 355 in 1924. There were, however, perhaps more cases than usual that proved of importance to the purchasing members, thereby emphasising the utility of resort to chemical examination. As in the previous year, considerable attention has been drawn to the use of lime in different forms on land, a subject of much urgency in many parts of the country. Instances of loss of cattle through the occurrence of castor-oil bean in feeding stuffs, and of adulteration of Wheat and Oat Offals by rice-husk and other impurities, have also been dealt with.

42. An important event has been the issue of the Report of the Advisory Committee of the Ministry of Agriculture on the Fertilisers and Feeding Stuff Act. This Committee—on which the Society was represented by Mr. Luddington, the chairman of

the Chemical Committee—carried on the work of Lord Clinton's previous Departmental Committee, and issued a Report which, it may be said, has met generally with satisfaction. It is to be hoped that there will now be no needless delay, but that the Ministry will shortly put forward a Bill embracing the conclusions come to practically unanimously by the two Committees appointed to enquire into the working of the present Act and its improvement.

43. An attempt was also made to come to some general agreement among scientists and practical men in regard to the Tables now in use for the Valuation of the Unexhausted Manurial Value of feeding stuffs and fertilisers. In the absence of any satisfactory agreement on the points involved, Dr. Voelcker has, at the request of the Central Association of Agricultural Valuers, revised and extended the existing Tables, bringing these up to date.

44. The institution, at the Rothamsted Experimental Station, of a series of Conferences on matters of scientific and practical interest, will be welcomed. Two such have already been held, the one on "Green-manuring," the other on "Liming of land." Both subjects were introduced by Dr. Voelcker, who drew largely upon the work done at the Woburn Experimental Farm in past years when it belonged to the Society.

45. The Chemical Committee has to deplore the loss by death of two of its members, Mr. C. Howard Taylor, and its senior member, former chairman, and ex-president of the Society, Sir J. B. Bowen-Jones, Bart. Sir Bowen for a very lengthened period devoted invaluable support to the work of the Committee, in which he took the greatest interest.

Botanical Department.

46. The year 1924-5 has been an uneventful one from the laboratory point of view, most of the enquiries being of a more or less routine nature, neither was any one of the sections into which they fall especially prominent. In many districts the adverse conditions beginning in the autumn and continuing until late in the spring handicapped wheat and winter oats considerably, and were probably partly responsible for epidemics of some of the fungoid diseases sent in for identification. One of these, "Take All," became a source of serious loss to wheat growers in the Eastern counties. Another, "Helminthosporium," was unusually prevalent on oats during the early summer, but the infected crops, as a rule, made an unexpectedly good recovery. The number of enquiries on such subjects as the management of grassland, crops for ensilage making, the identification and eradication of weeds, the characteristics of the newer cereals, will probably prove to be about the average of the past three years, but unless more germination tests are required on samples

of seeds for autumn sowing, there will be a diminution in the number of seeds samples tested.

Zoological Department.

47. The work of the Zoological Department has, as usual, consisted in advising Members of the Society in cases of insect attack ; in investigating obscure points in the life-history of pests ; and in the examination of specimens sent for identification. During the summer the applications were unusually numerous, and though most of the complaints concerned insects long recognised as injurious, this was by no means always the case. Attention has been given to new methods suggested for combating "Big Bud" in black currants, and to the menace to our cherry orchards from the unrestricted yearly importation of maggoty fruit from the Continent. So far the cherry fruit-flies have happily failed to obtain a footing in this country, but so disastrous an occurrence cannot be too carefully guarded against.

Animal Diseases.

48. During the first nine months of the year 123 outbreaks of foot-and-mouth disease were confirmed. Twenty-six of these occurred before September 26, and the intervals between successive outbreaks indicated that many of them were independent, that is, caused by a fresh introduction of the disease from abroad. The remaining 97 outbreaks occurred between September 26 and November 1, and 65 of them were in the last week of October. These outbreaks were distributed in three main centres, the first of which included parts of Lancashire, Cheshire, and York W. Riding ; the second, parts of the counties of Leicester, Warwick, Rutland, and Northampton ; and the third, Wiltshire. Anthrax, Sheep Scab, and Swine Fever have been rather more frequent than during the previous year, but there has been a decline in the number of outbreaks of Parasitic Mange, and only two cases of Glanders have been reported since the beginning of the year.

Foot-and-Mouth Disease.

49. In April last the Council, having considered the Report of the Departmental Committee on Foot and Mouth Disease, decided to address a letter to the Minister of Agriculture expressing regret at the reversal of the opinion of the 1922 Committee, by the Committee which reported early this year, as to the desirability of there being only one Diseases of Animals Committee in each geographical county. The Council recognised that there were difficulties, but did not agree that they could not be overcome. They therefore re-affirmed their resolution of February 6, 1924 :—

"That the Council of the Royal Agricultural Society is strongly of opinion that legislation is urgently needed providing that there shall be one Authority only for the control of

Animal Diseases in each geographical county, which should be a Joint Animal Diseases Committee representing the County and Borough Councils within the boundaries of such County."

50. By resolution passed at their last meeting the Council urged upon the Ministry of Agriculture "the necessity of taking effective steps to prevent importation into this country of goods packed in hay, straw and other materials of a similar kind which may be a source of infection, and that they prohibit the sale of foreign fruit, forest, rose and other trees in local markets."

51. The Foot-and-Mouth Disease (Packing Materials) Order of 1925 since issued, which operates from November 19, goes some way to deal with the sources of infection to which reference is made in the resolution.

Sheep Scab.

52. The Council, at their April meeting, called the attention of the Ministry of Agriculture to the failure of the Sheep Scab Order of 1923 as it was being administered, and urged the Ministry to give the matter their most serious and prompt attention. A communication before the Council in May stated that the Ministry were elaborating a new Sheep Scab policy which could not be issued in definite form for some time, and which probably could not be applied until next year.

53. A Draft Order, with explanatory Memorandum, has now been circulated, and representative bodies are invited to express their views concerning it before it is put into force. It proposes to put into operation a plan for the eradication of Scab involving dipping requirements and movement restrictions limited to a comparatively short period of the year (July 15 to August 31), the remainder of the year being free from restriction or from the requirement of dipping on movement. These requirements and restrictions would apply to all sheep throughout Great Britain except in any county declared by the Ministry to be exempt on the ground that it has been free from Scab for at least the two preceding years. Special measures would, in addition, as at present, be applied by the Ministry to the worst infected areas, and the Order of 1920 with certain amendments will continue to apply to the sheep concerned in individual outbreaks of Scab.

54. On the recommendation of their Veterinary Committee, the Council decided on November 4 to signify their approval of the proposed new Order.

Tuberculosis Order, 1925.

55. On September 1 last the Milk and Dairies (Consolidation) Act took effect, and a new Tuberculosis Order came into operation. This order aims at the destruction of every cow suffering from tuberculosis of the udder, or giving tuberculous milk, and every bovine animal suffering from tuberculous emaciation, or

suffering from chronic cough, and showing definite clinical signs of tuberculosis. These forms of the disease are notifiable under the Order.

Importation of Pedigree Animals Act.

56. Under the Importation of Pedigree Animals Act, 1925, the Minister of Agriculture may make orders for allowing cattle, sheep, goats and swine brought from any part of His Majesty's Dominions to be landed in Great Britain without being subject to the provisions of Part I of the Third Schedule to the Diseases of Animals Act, 1894 (which relate to slaughter at the port of landing), but subject to the provisions of Part II of that schedule (which relate to quarantine). Such animals must be shown to the satisfaction of the Minister of Agriculture to be registered as Pedigree Stock in a Dominion herd or flock book recognised by him after consultation with the Royal Agricultural Society of England and the Highland and Agricultural Society of Scotland.

Export of Horses Committee.

57. As the representative of the Society, Sir Gilbert Greenall attended and gave evidence before the Departmental Committee on the Export of Horses to the Continent.

58. In their Report recently issued the Departmental Committee state: "We are satisfied from the evidence which we have received that no horse which could be described as decrepit has been passed for export by the Port Inspectors since the reorganisation of the Ministry's arrangements in 1921, and that the provisions of the Acts of 1910 and 1914 are being effectively carried out."

Research Committee.

59. A report on the work completed and in progress under the auspices of the Research Committee appeared in the JOURNAL (Vol. 85, p. 393). There were also published in the same issue a report on the Spring Oat Trials conducted for the Committee by the National Institute of Agricultural Botany, and a paper by Mr. Dampier Whetham on "Electric Power in Agriculture," a question studied by him at the request of the Committee.

60. Investigations still in progress include experiments dealing with Whey, Malting Barleys, Lucerne Inoculation, Green Manuring, and the Improvement of Grass Land. New work undertaken includes experiments in seeding down to grass land at Compton Cassey, Gloucestershire, placed at the Committee's disposal by Prof. Somerville, and an investigation regarding the production of Sugar-Beet Seed by the National Institute of Agricultural Botany.

61. Reports on the Feeding of Silage Experiments in East Suffolk, and the Bullock Feeding Experiments in Norfolk (to be

continued this winter) will, it is hoped, be published in the next issue of the *Journal*.

62. The Committee have decided on the formation of a committee of agricultural scientists to undertake the task of collating for publication in a periodical bulletin the results of agricultural research.

Research Medal.

63. One of the essays awarded the Gold Medal in 1924, entitled "The Economics of Production on Grass and Arable Farms," by Mr. H. J. Vaughan, appeared in Vol. 85 of the *JOURNAL*. The other essay which gained the Medal in 1924, on "The Proteins of Green Fodder," by Mr. W. L. Davies, is being published in the *Journal of Agricultural Science*. The Medal for 1925 has not been awarded, as no essay of sufficient merit was received.

Congratulations.

64. On January 25 last the Earl and Countess of Coventry commemorated their Diamond Wedding, and the Council took the earliest opportunity of sending to the Earl and Countess, through the President, a message of hearty congratulation on this most happy event in the life of one of the Society's Trustees.

65. The President, on behalf of the Council, had occasion in February last to congratulate Sir Rowland Biffen, the Society's Consulting Botanist, on the honour of knighthood conferred upon him by His Majesty the King.

Gifts Received.

66. The Council are indebted to Mrs. Holroyd, of Epsom, for a handsomely framed copy of the engraving by S. W. Reynolds after Ansdell's large painting entitled "The Country Meeting of the Royal Agricultural Society."

67. A valuable gift has been made to the Society's Library of twenty-three volumes of the works of Arthur Young by Major G. D. Amery, of Oxford.

"Queen Victoria Gifts."

68. For the year 1925 the Trustees of the Queen Victoria Gifts Fund have made a grant of £140 to the Royal Agricultural Benevolent Institution, to be allocated in grants of £10 each to male candidates, married couples, and female candidates.

Agricultural Policy.

69. Sir Gilbert Greenall (President), Mr. John Evens, and Mr. Alfred Mansell have been appointed by the Council to confer with the Minister of Agriculture on Agricultural Policy.

Medal for Cattle Pathology.

70. In the competitive Examination for the Society's Prizes for Cattle Pathology, conducted by the Professors of the Royal Veterinary College, the Silver Medal was this year gained by

Mr. J. R. Hudson, of St. Michael's Place, Retford, Notts. The Bronze Medal on this occasion was not awarded.

National Diploma in Agriculture.

71. At the Twenty-sixth Annual Examination held this year, fifty-one candidates were successful in gaining the National Diploma in Agriculture. See lists on pp. 247-9.

National Diploma in Dairying.

72. The Thirtieth Annual Examination was held at the University College and British Dairy Institute, Reading, for English students, from September 4 to 12, and at the Dairy School, Kilmarnock, for Scottish students, from September 18 to 26. Sixty-three candidates were examined at the English Centre, of whom 40 satisfied the Examiners, one reaching the Honours standard. Forty-nine candidates presented themselves at the Scottish Centre, of whom 35 passed, including one with Honours. The lists of successful candidates will be found on pp. 252 and 253.

By Order of the Council,

T. B. TURNER,

Secretary.

16 Bedford Square, London, W.C.
November, 1925.

REPORT OF THE RESEARCH COMMITTEE.

CONTINUING the Report presented last year (*Journal*, Vol. 85, 1924), the Research Committee now begs to submit the following summary of work completed, continued and initiated during the year 1925:—

I WORK COMPLETED OR IN PROGRESS.

EXPERIMENTS ON WHEY.

Reference was made in last year's report to the fact that Mr. L. Harding, who carried out for the Society in 1922 a laboratory and semi-technical investigation on the utilisation of whey, was continuing his work on a larger scale for the Ministry of Agriculture at their Research Factory at Haslington, near Crewe. The investigation is now completed, and an account entitled "The Whey Problem and a Solution," by Mr. Harding, has been published by the Ministry as Research Monograph No. 5, price 2s. 6d.

Mr. Harding submits that the work described in this report has demonstrated that—

(1) Whey can be condensed to less than one-tenth of its bulk in an economic manner without interfering with subsequent extraction processes.

(2) Condensed whey will keep indefinitely and can be easily transported in suitable packages.

(3) Given a sufficient quantity of raw material at a central factory, milk sugar, and animal foods can be economically produced from condensed whey.

Finally, that his suggested scheme for the utilisation of whey, which was the outcome of the work carried out for the Society, has been demonstrated to be technically and economically practicable.

The work on the more economical drying of whey on roller driers fitted with a specially invented pre-heater and concentrator has proceeded satisfactorily under the Direction of Capt. Golding at the National Institute for Research in Dairying, and extended trials have been made to test the efficiency of the new apparatus mentioned in the last report.

SILAGE FEEDING EXPERIMENTS.

These experiments were conducted under the auspices of the East Suffolk Education Committee by Mr. A. W. Oldershaw. The objects and method of the feeding trials were described at length in the Committee's last report, and the results have been summarised by Mr. Oldershaw in an article appearing in this issue of the Society's *Journal* (pp. 112-128).

GREEN MANURING.

Experiments on green manuring were begun in 1924, and the trials have continued during the year just ended.

Two distinct aspects of the problem are embraced in these trials :

(1) Methods of obtaining green crops.

(2) The effectiveness of green crops as green manure.

One main section of the experiments, that dealing with autumn-sown catch crops in the South-west, and with late summer catch crops in the East and Midlands, is concerned wholly with the second of the above aspects.

The other main section of the experiments is concerned with the first of the above aspects, namely how to obtain satisfactory yields of green crops for green manuring purposes.

It must be emphasised that seasonal conditions affect the success of green manuring systems more than that of other methods of manuring. If anything has to be sacrificed, in a bad season, it will be a crop which is not *itself* going to bring in any actual return, such as a green manure crop, rather than a crop which will itself be marketable. Moreover, in the case of green

manuring the actual *production* of the manure depends on suitable growing weather, so that the yield of the succeeding main crop may be doubly influenced by adverse climatic conditions.

The practicability of a system of green manuring over an average run of seasons can thus be judged only on the basis of experiments carried on for a number of years.

LUCERNE EXPERIMENTS.

(a) *Seed Inoculation.*

Of the trials started in 1924, ten showed a better growth from the inoculated than from the untreated seed, but unfortunately the wet summer caused the loss of the majority of these trials. During that year laboratory work was carried out which resulted in a modification of the inoculation technique. This modified technique was tested at another 30 localities in 1925, four of which have since been lost from various causes. There are now 31 trials in progress, ten of these lying within the South Eastern counties, where lucerne is already grown with success, and 21 distributed over the remainder of Great Britain, where lucerne is seldom grown. In the South-Eastern area, three trials have so far shown a benefit from the treatment, while outside this area there are 17 localities where inoculation has improved the growth. The experiments which have not yet shown an increase may of course do so this year, as they were in most cases sown late owing to the drought, but the results already seem to justify the opinion that lucerne seed should always be inoculated except in districts where it is known to grow successfully without inoculation. Up to the present, weight results have been obtained from seven of the trials, the following list showing the percentage increases due to inoculation obtained in the counties named.

	Per cent.	Per cent.	Per cent.
Kincardineshire	10	40	17
Durham	16.8	—	—
Staffordshire	2	—	—
Warwickshire	35	—	—
Gloucestershire	179	—	—
Wiltshire	141	—	—
Cornwall	31	—	—

In Staffordshire, while the increase in yield was not significant, there was an increase in nitrogen content of 48 per cent.

The experiments are being continued, and pending their completion members can obtain information on the process of inoculation and other points by communicating with Mr. Thornton, at the Rothamsted Experimental Station

(b) Cultivation Experiments.

A preliminary report on the work Mr. Mackintosh is conducting, at Reading, dealing with the initial treatment of the plots and the growth of the lucerne after sowing was presented by the Committee last year. The present report deals with the cultural operations and the results obtained to date.

An inspection of the plots was made on March 17, 1925, and on the drilled plots the rows were easily apparent everywhere, and the plants, though varying in size, were well established in spite of a wet winter. On the drilled plots, which had also been hand hoed, there was a much better growth and the plants themselves were distinctly stronger. On the broadcasted plots there was, on the whole, a smaller proportion of lucerne plants and this was particularly noticeable on the plots which had not received any surface cultivation.

From the presence of many smaller plants it appeared that germination of a proportion of the lucerne seed had been delayed until early autumn in 1924, following on the first hoeing and harrowing.

Surface Cultivation, Spring 1925.—On April 3, four of the drilled and eight of the broadcasted plots were harrowed three times each. No treatment was given to the four drilled and four broadcasted plots which had received no treatment in 1924. The hoeing by hand of the remaining four drilled plots was carried out early in May. The accompanying plan explains more fully the treatment of the different plots.

The plots were again inspected on June 16 during a period of drought which had extended from May 31. When the area was studied from the top of the field, the lines of the drills on the drilled plots could be readily distinguished, and on going through the crop the drilled plots were seen to be much better than the broadcasted plots, with one exception. There was also a considerable growth of weeds over all the plots, particularly slender foxtail, and in one part of the field there was also some coltsfoot.

Careful estimates were made of the amount of lucerne in each plot before cutting for hay, and the figures will be submitted when the complete record for the year's work is sent in. All the plots were cut for hay on June 17, and the weighing of all the produce from each plot was carried out on June 20. After this date there was a very appreciable increase in the growth and amount of lucerne on all the plots, whereas the weeds were much less in evidence. The strongest growth of lucerne was still most noticeable on the hand hoed plots, followed by the drilled and harrowed plots. On the broadcasted and harrowed plots the amount of lucerne was evidently increasing, though still much too sparse to be considered a good plant, and over all was more abundant than at any previous time.

PLAN OF LUCERNE EXPERIMENTAL AREA 1925.

<i>No Treatment</i>	<i>Three times Harrowed</i>	<i>Hoed</i>	<i>No Treatment</i>	<i>Three times Harrowed</i>	<i>Hoed</i>
1	2	3	4	5	6
D r i l l e d			B r o a d c a s t		

<i>No Treatment</i>	<i>Three times Harrowed</i>	<i>Hoed</i>	<i>No Treatment</i>	<i>Three times Harrowed</i>	<i>Hoed</i>
7	8	9	10	11	12
B r o a d c a s t			D r i l l e d		

<i>No Treatment</i>	<i>Three times Harrowed</i>	<i>Hoed</i>	<i>Three times Harrowed</i>	<i>No Treatment</i>
13	14	15	16	17
D r i l l e d			B r o a d c a s t	

<i>Three times Harrowed</i>	<i>No Treatment</i>	<i>No Treatment</i>	<i>Three times Harrowed</i>	<i>Hoed</i>
19	20	21	22	23
B r o a d c a s t			D r i l l e d	

After mowing in June, 1925, the plots were hoed and harrowed according to the plan of the experiment and the lucerne plant improved considerably. The produce on the plots was mown on August 19, but for some time afterwards the weather was very wet and it was impossible to make hay. Consequently the weights of produce from each plot were not obtained. In the end the partially rotted material was raked off and carted away. Later in the season some of the plots showed a moderate growth, which was cut for green soiling in October.

The general description of the results during 1925 is that a disappointing yield on all plots was obtained, and, with the exception of the first cut in June, the weather made the weighing and harvesting of later cuts impossible. The hand-hoed plots have been kept clean, but on the harrowed plots and still more on the control plots which had received no treatment, there is a very considerable growth of weeds.

The treatment according to plan will be continued throughout 1926. and there is a prospect that there will be a sufficient growth of lucerne to give a better measure of the effect of the different treatments.

MALTING BARLEY TRIALS

With the exception of the Manuring of Malting Barley Trials and the Variety Trials, upon which three years' data have been obtained, the whole of the results to date require confirmation. It is therefore proposed that a further year's work, at least, is required on those problems which formed the subject of the Committee's programme on the Norfolk Agricultural Station last year, under the direction of Mr. Rayns. It will be remembered that these included:—

1. A Variety Trial of Spring Barleys.
2. A Manuring of Malting Barley Trial.
3. A "Census" of an acre of Barley.
4. Investigation into the depth and rate of Seeding.
5. The influence of balanced and unbalanced nitrogenous manuring on Barley.—A preliminary to a detailed investigation of barley-growing following Sheep.

Nitrogenous manuring, in the form of 1 cwt. of Sulphate of Ammonia, has increased the yield per acre by 15 per cent. and has not impaired the quality in any way. This increase will bring a 30 bushel crop to one of 34½ bushels, at an additional cost of no more than 15s. per acre. Such manuring, however, has only been proved for a barley crop following roots that have been carted off, and may not therefore apply to the many acres of barley that follow swedes fed on the land. This is an important problem, and preliminary work has been commenced in studying the effect of balanced and unbalanced nitrogenous con-

ditions in the soil on malting barley. This is closely related to the sheeping problem, for manuring by sheep is mainly nitrogenous. At the onset it was essential to study the behaviour of barley under controlled soil conditions, as a preliminary to work on land actually manured by sheep. The preliminaries are now over, and the field is clear for the elucidation of a problem that has never been attacked and upon which knowledge is very scanty.

As a matter of general interest the barley programme of the Norfolk Agricultural Station includes the additional problems:—

1. An investigation into the relative winter hardiness of the varieties Archer-Spratt, Plumage Archer and Archer when Autumn sown.

2. A comparison of the yield and quality of these varieties when Autumn and Spring sown.

So far as Norfolk is concerned the possibilities of Autumn-sown two-rowed barleys must be investigated in detail.

The yield data which have resulted during the past year are attached. The quality determinations which are being made by the Institute of Brewing have not yet been received.

Yield Data to December 31, 1925.

VARIETY TRIALS

Varieties	Average of two years	
	Grain cwts. per acre	Straw cwts. per acre
Beaven s Improved Archer .	16 6	20 0
„ 1924 Plumage Archer	16 8	17·7
Sunrise	18 9	21 3

MANURING OF MALTING BARLEY

Treatment per acre	Average of three years per acre	
	Grain cwts.	Straw cwts.
No Manure	14·65	15 96
3 cwt Super		
1 „ Sulphate of Potash	19 15	22 30
„ Sulphate of Ammonia		
Super	17 01	18 79
Sulphate of Potash		
Sulphate of Potash	16·88	20·07
Sulphate of Ammonia		
Super	18 29	20 85
Sulphate of Ammonia		

Quite early in the above trial it was obvious that the inclusion of Sulphate of Ammonia was a potent factor in increasing the yield. To explore its limit of possibilities a further series was put down with two varieties and gave the following results:—

INCREASING QUANTITIES OF SULPHATE OF AMMONIA, 1925.

Treatment Cwts per acre	Plumage Archer Yield cwts per acre		New Cross Yield cwts per acre	
	Grain	Straw	Grain	Straw
0 .	17 17	16 83	17 85	17 64
1½	22 95	22 61	24 99	24 31
3 .	21 59	23 46	24 99	25 35

All the plots stood well, which was quite contrary to expectation. In anticipation of practical difficulties of this nature and possible ill effects on the quality, an auxiliary trial was undertaken with increasing quantities of the following mixture:—

3 Super. 3 Kainit. 1½ Sulphate of Ammonia.

The results so far are:—

INCREASED QUANTITIES OF A BALANCED MANURING, 1925.

Treatment Cwts per acre	Plumage Archer Yield cwts per acre		New Cross Yield cwts per acre	
	Grain	Straw	Grain	Straw
0 .	18 02	17 34	23 29	20 03
3 .	21 25	20 06	24 48	23 97
6 .	22 27	21 76	30 70	29 64
9 .	26 03	30 02	31 21	29 68

Malting tests on these barleys in the "Increasing Quantity" series will give valuable information, which while being directly related to them is also of application as a guide to further work on manuring for barley after sheep. So far 1 cwt. of Sulphate of Ammonia has not decreased the quality. This is again contrary to the accepted idea.

Depth and rate of sowing both influence quality. There are distinct differences in the various samples.

DEPTH OF SEEDING, 1925

Depth of Sowing		Yield per acre	
		Grain Cwts	Straw Cwts
Plot 1	Surface	21 8	23 5
, 2	$\frac{3}{4}$ in	21 1	25 2
, 3	$1\frac{1}{4}$	20 3	24 05
, 4	2	20 9	20 7

RATE OF SEEDING, 1925

Rate per acre		Yield per acre	
		Grain Cwts	Straw Cwts
Plot 1	$1\frac{1}{2}$ bushels	23 1	26 6
, 2	$2\frac{1}{2}$ "	22 2	23 7
, 3	4 "	21 5	23 3

GRASSLAND IMPROVEMENT

(a) Shoby, Leicestershire, Experiments

Grazing Season 1925—At the conclusion of the 1924 grazing season it was found that the land had been very evenly grazed, and that practically no surplus grass remained, consequently during the Winter of 1924-25 the land was rested, it being considered that no winter grazing was necessary.

During the Winter the land was twice harrowed with heavy Parmeter Harrows, and in addition a portion of about three acres in each plot was also treated with a new machine called the "Rejuvenator." This machine cuts the turf into strips about eight inches wide, by means of sharp coulters which penetrate to a depth of about two and a half inches. When the turf is matted by old "fog," the machine does useful work in promoting aeration of the soil and it was distinctly noticeable that the Wild White Clover readily runs along the newly formed incisions, thus facilitating the spread of that valuable plant, which incidentally promotes more even grazing. When the land is set up in pronounced ridges—as it is at Shoby—the machine also does good in letting in the water, particularly on the crown of the ridges. This again promotes growth on the ridges and ultimately more grazing. These high backed lands are the first to show the effects of dry weather, particularly on the crown of the ridge, and this is, no doubt, due to the fact that the ridge

acts more in the nature of a thatch in shooting the rains into the furrows. It is very probable that the Rejuvenator would do a vast amount of good if used on the ridges of many grass fields where there is no mat all, simply by promoting the entrance of water into the soil and particularly so at the crown of the ridge.

The cattle and sheep were again purchased by Messrs. James, Astill and S. W. Fox, in April and May. The 35 cattle were ordinary home-bred shorthorn steers, ranging from two to two-and-a-half years old; the sheep were a fairly even lot of half-bred hogs. The 51 sheep purchased were weighed and finally arranged in five lots of ten each and placed upon the plots on April 7. One sheep had to be sold owing to being injured by a motor car. The cattle were weighed and arranged in even lots and placed on the plots on May 12.

When the grazing period commenced on April 7, with sheep alone, there was a fair bite of grass which later on, and particularly throughout the month of May, grew very rapidly, and about the first ten days in June it was quite obvious that the growth of grass was proving to be more than ample, and it appeared, for a time, that it might be necessary to increase the number of cattle in order to cope with the great amount of grass. After consulting with Dr. Somerville, however, it was decided to leave the stocking of the plots as originally settled. The wisdom of this decision appeared later, when very dry conditions supervened during the month of June.

The progress of both cattle and sheep proved quite satisfactory considering the climatic conditions which prevailed, especially in June and early July.

Towards the end of the grazing season it was decided to reduce the number of sheep on each plot, and accordingly five sheep from each plot (a total of 25) were sold by auction at Melton Mowbray Market on September 8. The remainder of the sheep (25) and the 35 bullocks were sold on October 6 at the same market. The plots have been very evenly grazed throughout this season.

During the Summer, the plots were visited by parties of Leicestershire farmers and the visitors, about 250 in the aggregate, showed a great interest in the trials.

The Plots upon which slag has been applied, all show a marked increase in the development of Wild White Clover.

Plot No. 5, which received North African Phosphate, shows a very fair development of Wild White Clover, but it is by no means so pronounced as the Plots receiving Slag. The action of this fertiliser appears to be somewhat slower than Slag.

The following Summary brings out the more salient features of the results obtained in the Grazing Season of 1925, and for

convenience of comparison the results obtained in 1924 are incorporated.

SUMMARY OF LIVE WEIGHT INCREASES PER ACRE, 1924 AND 1925.

Plot I		Plot II		Plot III		Plot IV		Plot V	
Slag		Slag and Cake		No Manure		Slag		North African Phosphate	
Cattle lb.	Sheep lb.	Cattle lb.	Sheep lb.	Cattle lb.	Sheep lb.	Cattle lb.	Sheep lb.	Cattle lb.	Sheep lb.
1924 226	43½	236	42½	186	40	201	47	193	38
1925 199	71½	220	62	167	66	208	79	168	70½
425	115	456	104½	353	106	409	126	361	108½

VALUE OF INCREASES PER ACRE.
(Cattle, 4*d.*, and Sheep, 4½*d.* per lb)

	Plot I		Plot II		Plot III		Plot IV		Plot V	
	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>	<i>s.</i>	<i>d.</i>
1924 Value of Live Weight Increase	91	7	94	7	77	0	84	7½	78	7
1925 Value of Live Weight Increase	93	2	96	7	80	5	98	11½	82	5
Loss cost of Manures and Cake, 1924 25 .	184	9	191	2	157	5	183	7	161	0
	16	3	71	4	—		32	6	23	2
	168	5	119	10	157	5	151	1	137	10

SUMMARY OF PURCHASES AND SALES OF STOCK.

Purchases.			Sales.		
	£	<i>s.</i> <i>d.</i>		£	<i>s.</i> <i>d.</i>
35 Bullocks . . .	674	18 2	35 Bullocks. . . .	712	17 6
51 Sheep	223	5 0	51 Sheep	203	17 0
			Wool	26	1 6
	£898	3 2		£942	16 0

(b) Sawley, near Clitheroe, Experiments.

These experiments are being continued, and a report will be presented in due course

BULLOCK FEEDING.

The experiments at the Norfolk Agricultural Station undertaken to investigate the economy of reducing the ration of oil-cake and meal in the Winter feeding of cattle have been continued. Owing to the closing of markets necessitated by foot and mouth disease the sale of the experimental bullocks has been delayed. A full report, however, will be presented next year.

II. WORK BEGUN IN 1925.**SUGAR-BEET SEED INVESTIGATION.**

The National Institute of Agricultural Botany is engaged upon investigation relating to Sugar-Beet on behalf of the Society. The work has not proceeded far enough to justify a report, but information upon the arrangements made may be of interest to the Council :—

1. Stocks of Sugar-Beet seed have been obtained from the following sources :—

Messrs. Gartons, No. 624

No. 1024

No. 1124

No. 1224

J. Zapotil Prague

Wohanka „

(No special mark) „

ilmorin's Selection B

Vilmorin's White French

British Sugar-Beet Society's "Dippe"

„ „ „ „ "Kuhn"

These have been planted at the Norfolk Agricultural Station's farm at Sprowston, nr. Norwich, each in four separated drill widths scattered over the trial area. Such repetition should give data of some reliability concerning the comparative yields of the varieties in question.

In addition, single plots of 7 stocks of seed supplied by the Anglo-Scotch Beet Sugar Corporation are being grown in the same field for observation purposes. Reserve stocks of seed of all the above have been retained for further sowing if required in 1926.

It is proposed that if any of the first-mentioned stocks are shown by trial to be distinctly inferior they shall be replaced in the trial by more promising types from those supplied by the Anglo-Scotch Beet Sugar Corporation.

Arrangements have been made for sugar analysis of all those stocks by a qualified chemist at the School of Agriculture,

Cambridge. This chemist has already made a sectional analysis of a batch of beets in order to discover the method of coring which will supply the most accurate estimate of the sugar content of the roots, and a standard method of coring has been decided on as a result of this work.

In each case cores of duplicate lots of 50 roots of each strain will be taken by the standard method and sent to Cambridge for analysis.

2. A tour of inspection has been made in the Eastern Counties to view crops of sugar-beet being grown on behalf of Messrs. Gartons. Permission is being obtained to sample 9 varieties growing on one farm (4 identical with those in the Norfolk Agricultural Station trial). In addition Messrs. Gartons will supply samples from 14 stocks; testing will also take place of several samples from manurial trials at the Norfolk Agricultural Station. Since these crops will also be tested at sugar factories, information should be forthcoming as to the agreement between the results of scientific and commercial methods of sampling and analysis. Finally, Dr. Beaven, of Warminster, who is carrying out independent yield and quality trials has promised to give access to his results.

It is possible that further samples from commercial crops for quality test will be received by the Institute in the course of the Autumn, and these also will be analysed at the School of Agriculture.

CROP DRYING DEMONSTRATION.

With the assistance of a grant from the Committee, a demonstration of crop drying in the stack was given in the Society's Showyard, at Chester, by the Institute of Agricultural Engineering, Oxford. The demonstration was witnessed by His Majesty.

III. MISCELLANEOUS MATTERS.

THE COLLECTION AND PUBLICATION OF THE RESULTS OF AGRICULTURAL RESEARCH.

During the year the Committee has given much consideration to the important question of the dissemination of the results of agricultural research. There is a pronounced "lag" in the translation into practice of valuable information acquired by experiment and research, due to the difficulty of making such information known to agriculturists. The channels of communication, at the present time, are provided by the reports of the research stations, articles by research workers in the agricultural press and in the annual publications of the "Royal" and kindred societies, by public lectures, and by demonstrations organised, in the main, by the County Agricultural Advisory

Staffs. The Ministry of Agriculture issues, from time to time, a valuable summary of work in progress at the various institutions receiving grants-in-aid from public funds, under the title of "Agricultural Research and the Farmer." But useful as these methods of dissemination are, the Committee felt that more rapid progress could be made if it were possible to bring together, in a single volume published annually, the ascertained results of the research work of the year. These results should be presented in a concise form, and in language easily understood by the non-scientific but practical man, and should include the results of agricultural research at home or abroad of present importance, or likely to be of future value, or even definitely of negative value. The volume should also be of service to those engaged in educational work at Universities and Colleges, and to County Agricultural Organisers. Further, in order that the publication might act as a reference book to scientists in future years, it should include analysed references and indices, showing from what journals, bulletins, etc., the information had been drawn.

After full consideration the Committee decided to invite a number of gentlemen engaged in agricultural research to meet Sir Merrik Burrell for the purpose of discussing the formation of a Committee to give effect to these proposals. The Committee proposed were :—

Sir John Russell (Soils and Manures).

Sir John McFadyean (Veterinary Science).

Dr. C. Crowther (Animal Husbandry).

Mr. C. S. Orwin (Agricultural Economics).

Dr. B. J. Owen (Agricultural Engineering).

Mr. J. Mackintosh (Dairying).

Mr. F. L. Engledow (Plants and Crops—including their diseases and parasites),

with Mr. Wilkins, of the Ministry of Agriculture, as liaison member between the Committee and that Department.

All present agreed that no work of the kind proposed was being done in any one of the sections of Agricultural Science mentioned above, and that great value should accrue by preventing the loss of valuable results through lack of proper recording, and by the promulgation of the latest scientific knowledge in language easily understood by all, and that this value would not be confined to Great Britain but would be of service in the Dominions and other parts of the world.

It was the general opinion that there was no other body in Great Britain able to undertake the work except the Royal Agricultural Society of England.

The size of the proposed Volume was discussed and it was decided that about 300 pages should suffice (with illustrations as necessary), the space to be divided amongst the various

contributors according to the importance of their records in any particular year. The publication of the Volume could probably take place each year in the Autumn.

All the gentlemen named have agreed to assist, and Mr. Orwin will act as Chairman of the Committee and General Editor.

GOLD MEDALS FOR RESEARCH.

The experience acquired since the competition for a gold medal for agricultural research was revived, suggests that the present scheme, whereby candidates submit essays describing their work, is not producing the best possible results. The Research Committee are of opinion that some change is necessary in the conditions governing the award of gold medals, and they suggest the appointment of a Sub-Committee to consider the matter, consisting of Mr. Whetham and Mr. Orwin, representing the Research Committee, and Lord Harlech and Col. Stanforth, nominated by the Selection Committee.

SUMMARY.

The Research Committee have been actuated throughout their work by the desire to allocate the Society's grant for the purpose of assisting trained scientific agriculturists to carry out investigations of problems arising in farming practice on properly organised lines. They wish to record that in several cases their expenditure has been in the form of grants-in-aid, and that liberal contributions to their work have been made from other sources, in the form of money, land, buildings and personal help.

NATIONAL AGRICULTURAL EXAMINATION BOARD

*Appointed by the Royal Agricultural Society of England
and the Highland and Agricultural Society of Scotland.*

I.—REPORT ON THE RESULTS OF THE TWENTY-SIXTH EXAMINATION FOR THE NATIONAL DIPLOMA IN AGRICULTURE.

HELD AT LEEDS, APRIL 15 TO 22, 1925.

1. The Twenty-sixth Examination for the NATIONAL DIPLOMA IN AGRICULTURE was, by the courtesy of the authorities, held at the University of Leeds, from the 15th to the 22nd April last.

2. The subjects of Examination were Practical Agriculture (two papers), Farm Machinery and Implements, Land Surveying

and Farm Buildings, Agricultural Chemistry, Agricultural Botany, Agricultural Book-keeping, Agricultural Zoology, and Veterinary Science and Hygiene. The whole nine papers could be taken at one time, or a group of any three, four or five in one year and the remaining group within the next two years. Candidates taking the whole Examination in one year who failed in not more than three subjects, and candidates taking a second group who failed in not more than two subjects, were allowed to appear again for those subjects only next year. Candidates failing in one or two subjects of a first group of not less than four, or in a single subject of a group of three, were permitted to take those subjects again in conjunction with the second group.

All candidates, before sitting for the Practical Agriculture and Farm Machinery and Implements papers, had to produce evidence of possessing a practical knowledge of Agriculture obtained by residence on a farm for a period or periods covering a complete year of farming operations.

3. One hundred and seventy-three candidates presented themselves, as compared with 155 last year. Nineteen candidates took the whole Examination, 76 who had previously passed in certain subjects appeared for the remaining portion, and the other 78 candidates came up for a first group of subjects.

4. At Leeds, 17 candidates failed in *Farm Machinery and Implements* alone, and, as a special matter, these were given an opportunity of being re-examined in the subject. A fresh paper, set by the same Examiner as at Leeds, was answered simultaneously by the candidates who took advantage of this opportunity—4 in Edinburgh and 10 in London—on August 5. As the result of this further examination, four candidates reached the pass standard in this subject, and their names are included in the lists which follow.

Fifty-one candidates have been successful in obtaining the Diploma, the first two *with Honours*. The names of the other Diploma-winners are in alphabetical order:—

Diploma with Honours.

- 1st. HARRY OATES HIRST, University of Leeds.
- 2nd. JOHN HAINSTOCK ANDERSON, University of Leeds.

Diploma.

- STEPHEN BARRATT, University of Leeds.
 ALEXANDER JOHN BEAN, University of Aberdeen.
 JOSEPH BROADHURST, Midland Agricultural College, Sutton Bonington, Loughborough.
 WILFRID JAMES BRYAN, Harper Adams Agricultural College, Newport, Shropshire.
 NEEL CORDEROY, Seale Hayne Agricultural College, Newton Abbot, Devon.

JAMES ALAN CRAIG, West of Scotland Agricultural College, Glasgow.
 JOHN ROBERTSON CURRIE, University of Glasgow and West of Scotland Agricultural College.
 GEORGE FEUFFEL, West of Scotland Agricultural College.
 MAJOR THOMAS FOSTER, D.S.O., Park View, Combermere, Whitechurch, Shropshire.
 GERALD E. N. FURSL, Seale Hayne Agricultural College.
 JOHN GIBB, West of Scotland Agricultural College.
 JAMES JOSEPH GLAVIN, Royal College of Science, Dublin.
 FRANCIS JANET GLEGG, East of Scotland Agricultural College, Edinburgh.
 CHARLES ROY GRILLWOOD, Harper Adams Agricultural College.
 HAROLD SLATER HAIGH, University of Leeds.
 BERNARD JAMES HALMES, Seale Hayne Agricultural College.
 DONALD HORNER, Seale Hayne Agricultural College.
 JOHN EVERARD HOSKING, Seale Hayne Agricultural College.
 JOHN BOAG HOUSTON, West of Scotland Agricultural College.
 ALBERT DAVID IMPER, University of Aberdeen.
 REGINALD ALFRED JEFFERY, Midland Agricultural College.
 DOROTHY KENYON, University College of Wales, Aberystwyth.
 VIDA HELEN LAMB, West of Scotland Agricultural College.
 JOHN RIAL LEE, University of Leeds.
 GEORGE WINSLOW LOCK, Midland Agricultural College.
 LEONARD THORNTON LOWE, School of Agriculture, Reaseheath, Nantwich.
 JOSEPH McCLEMONT, University of Glasgow and West of Scotland Agricultural College.
 HUGH McCRAE, University of Glasgow.
 WILLIAM ALEXANDER MCGEOCH, West of Scotland Agricultural College.
 ALEXANDER MCGIBBON, University of Glasgow and West of Scotland Agricultural College.
 SAM MORRIS MARINGS, Midland Agricultural College.
 AGNLS ADAM MLIKLE, West of Scotland Agricultural College.
 CYRIL SHAARMAN MORRIS, Seale Hayne Agricultural College.
 JAMES MORRISON, University of Aberdeen.
 ROBERT SMUTHERS RMD, West of Scotland Agricultural College.
 DAVID ROBERTSON, University of Aberdeen.
 WILLIAM BIRD ROUSON, Armstrong College, Newcastle-on-Tyne.
 DONALD ROWE, University College, Reading.
 THOMAS RONALD SHAXSON, Seale Hayne Agricultural College.
 MARGARET MAY SPEEDY, East of Scotland Agricultural College.
 JANET LAMBIE STEWART, West of Scotland Agricultural College.
 AGNLS B. THORNLLY, West of Scotland Agricultural College.
 SIDNEY STANLEY JOE TRAVERS, S.E. Agricultural College, Wye, Kent.
 WALTER WILKINSON, University of Glasgow and West of Scotland Agricultural College.
 CHARLES HARROWER WESTWATER, University of Glasgow.
 ALLEN HEYWOOD WILSON, Midland Agricultural College.
 HERBERT WOOTTON, University of Leeds.
 MAURICE CHARLES WRIGHT, West of Scotland Agricultural College.
 ARCHIBALD DOUGALL WYLLIE, West of Scotland Agricultural College.

5. Ten of the Candidates appearing for the whole examination failed in not more than three subjects, and seven of those taking a second group of subjects failed in not more than two. These will be permitted next year to take again the papers in

which they failed, if then successful in passing, they will be awarded the National Diploma.

6. Of the 78 candidates appearing for a first group of subjects, the following 37 succeeded in passing, and will therefore be permitted, subject to the Regulations, to take the second group in 1926 or 1927 —

ALEC S ASHMOU, Seale Hayne Agricultural College, Newton Abbot.
 LEONARD A ATTFELD, Harper Adams Agricultural College, Newport, Shropshire
 CYRIL BEAUFMONT, University of Leeds
 JOHN ANDERSON BROWN, Midland Agricultural College, Sutton Bonington
 JAMES CLARK BROUNIE, West of Scotland Agricultural College
 ALEXANDER CAIDDER, University of Aberdeen
 JOHN CALDER, West of Scotland Agricultural College
 KENNETH MATHLSON CAMERON, University of Glasgow and West of Scotland Agricultural College
 JOHN MAURICE COTTELL, University College, Reading
 ARTHUR CYRIL CROSS, Midland Agricultural College
 JOHN FULLERTON, Harper Adams Agricultural College
 JOSEPH EDWARD GIBBY, University College, Aberystwyth
 STANTON GIBSON, University College, Reading
 DONALD HENRY HALDANE, University of Leeds
 HERBERT HODGSON, Midland Agricultural College
 DUDLEY ALFRED HOLE, University of Leeds
 WILLIAM ALFRED JOHNSON, Harper Adams Agricultural College
 JOHN DAVID STUART MARTIN, West of Scotland College of Agriculture
 ALEXANDER FIFMING MLIKLE, West of Scotland Agricultural College
 ALEXANDER GRAY MOWAT, University of Glasgow and West of Scotland Agricultural College
 I RANK ROWELL POLLARD, Midland Agricultural College
 EDWARD GUTHRIE PRELICK, University of Glasgow and West of Scotland Agricultural College
 LAURELOT RENNIE, West of Scotland Agricultural College
 GEORGE MARWICK ROBERTSON, Midland Agricultural College
 HENRY JOHNSON SIANGL, Midland Agricultural College
 HENRY CHARLES SMITH, Midland Agricultural College
 GEORGE DUNCAN SIVVENSON, Midland Agricultural College
 JOHN STIRLING, West of Scotland Agricultural College
 GEORGE TEMPLE, West of Scotland Agricultural College
 JOHN OWEN THOMAS, University College, Aberystwyth
 DENZIL PREVAINS, Seale Hayne Agricultural College
 ARTHUR EDWIN TROTMAN, Harper Adams Agricultural College
 GEORGE NICHOLAS KING TURNBULL, West of Scotland Agricultural College
 MAURICE WARD, University of Leeds
 JOHN MCADAM WATSON, West of Scotland Agricultural College
 ARTHUR PALMER WELLER, University College, Reading
 THOMAS STAFFEY WRIGHT, Seale Hayne Agricultural College

7. Twenty-six of the unsuccessful candidates sitting for a first group failed in one or two subjects, which, in accordance with the Regulations, they will be allowed to take again in conjunction with the second group

8. The Reports of the Examiners in the different subjects are appended —

PRACTICAL AGRICULTURE (First Paper, 400 Marks. Second Paper, 400 Marks) William Bruce, M.A., B.Sc., G. H. Garrad, N.D.A., and William Burkitt, M.Sc.

Ignorance of the principles of breeding of Farm Live Stock was very marked, in a country in which the live stock is so important, the lessons derived from the experience of last-century breeders should receive more attention in our Colleges of Agriculture than is apparently the case at the present time.

Attention must be drawn to the failure of many of the candidates to identify the common feeding stuffs in ordinary farm practice.

Whilst owing to the youth of many of the candidates it is perhaps hard to criticize them on account of their very local knowledge of agriculture, we feel bound to draw attention once more to the great advantage accruing to candidates who have a knowledge of more than one system of farming.

FARM MACHINERY AND IMPLEMENTS. (300 Marks) Captain B. J. Owen, M.A., D.Sc., etc.

The general standard of knowledge was disappointing, and it appears that the teaching in Agriculture and Engineering in this country does not receive the attention that it deserves.

The paper work was of a very poor quality, and the average marks obtained out of a possible of 300 was only 115. Only a very weak knowledge was shown of simple terminology and the description of ordinary everyday farm implements was too vague.

A fairly lengthy and *vide* examination was given in purely practical questions such as the faults found in the reaper and binder and their adjustments also in the common adjustments made in the plough. But this examination again revealed an indifferent knowledge of the practical application of farm machinery. It was realised that agricultural students are not intended to be engineers, but if the teaching of Agricultural Engineering does not produce a fairly thorough practical knowledge of the efficient use of ordinary farm implements such as could make the students capable of judging the best machine for a given type or condition of work with a knowledge of the simple economic factors involved, then the training must be regarded as having failed in its main purpose.

My opinion is that any substantial improvement in this subject cannot be looked for until all the agricultural institutions from which the candidates are drawn provide a thorough training in the practical use of farm machinery in addition to the theory underlying such use. From a considerable experience of methods adopted in other countries, particularly the United States of America, I have seen the advantage accruing from a training of this character.

LAND SURVEYING AND FARM BUILDINGS. (100 Marks.) R. Cobb, F.S.I.

The written questions were on the whole better answered than last year but possibly the paper was on the easy side and followed a little more than usual the stereotyped and textbook lines.

I found the elementary practical questions in the *vide* were not answered as might have been expected in a Diploma of this description.

The surveying and drainage parts of the subject were better known than that of the farm buildings.

AGRICULTURAL CHEMISTRY. (300 Marks) Dr J. Augustus Voelcker, M.A., F.I.C., and H. J. Page, B.Sc.

In this subject the results, while not being marked by special excellence (only one candidate reaching five sixths marks), were, on the whole, satisfactory, inasmuch as 32 out of the 77 obtained two thirds of the total marks available. The number of failures was 16 while 7 others only just reached qualifying marks. As has been observed before, the chief deficiency—one brought out markedly in the *vide* examination—was the want of grounding in general chemistry, particularly in relation to organic chemistry. On the other hand, questions dealing with the practical application of the subject were well answered, and specimens submitted were as a rule recognised. A want of familiarity with recent developments was too frequently shown and questions such as No. 4 (purification of sewage) and No. 10 (insecticides and fungicides), which were of a more specialised nature, were less generally attempted.

AGRICULTURAL BOTANY. (200 Marks) Prof. John Percival, M.A., Sc.D.

On the whole, the candidates did better in this subject than last year. Nearly all had a satisfactory knowledge of the common grasses and clovers and their seeds and few recognised ears of rye, barley and wheat or wild oat. Botanical descriptions were not good, and more attention should be given to this, most of the descriptions of common weeds were very vague. The majority of the candidates had not had sufficient training in practical laboratory work, this observation applies more particularly to the examination of parasitic fungi and their effects on the crops of the farm.

AGRICULTURAL BOOK-KEEPING. (200 Marks.) James Wyllie, B.Sc., N.D.A (Hons.), N.D.D.

Although a number of excellent papers were submitted, the average standard of merit leaves room for considerable improvement. Few candidates seemed to have considered the use to which farm accounts might be put as a guide to more efficient management, many gave the impression that to them book-keeping is a purely mechanical process, the fundamental principles of, and reasons for, farm accounting being imperfectly understood. Many of the papers were slovenly done and more attention should be given to neatness and accuracy in working.

AGRICULTURAL ZOOLOGY. (200 Marks.) James Ritchie, M.A., D.Sc.

Overall, the knowledge of animals of agricultural interest displayed in the written examination was good, in particular life histories of pests were well handled, and a fair number of candidates showed commendable familiarity with recent research work, as in the cases of the life cycles of the ox warble fly and the filth fly.

In a large number of cases the practical examination was disappointing. There was shown especially a lack of acquaintance with common and important insect types and pests. It is obvious that theoretical knowledge of a pest and its control is of little value, if the pest itself is not recognized by the student.

Greater attention should be paid by candidates to the setting down on paper of their knowledge, a haphazard arrangement of facts gives an impression of muddled knowledge, whereas an orderly succession of paragraphs suggests that the writer has some grip of his information.

VETERINARY SCIENCE AND HYGIENE. (200 Marks.) O. Charnock Bradley, M.D., D.Sc., M.R.C.V.S.

So far as my own subject is concerned and taken as a whole, the candidates showed a satisfactory knowledge of their work and reflected credit upon the teaching they had received. This is indicated by the fact that while 11 obtained 75 per cent. (or more) of possible marks, only 4 failed to obtain the minimum necessary for a pass.

Generally speaking weak candidates were at their weakest when dealing with questions of normal structure and function.

9. The thanks of the Board are again due to the authorities of the University of Leeds, for their liberality and courtesy in placing the Great Hall and other rooms of the University at the Board's disposal for the Examination; and to the Examiners, for the care and attention they bestowed upon the written answers to the papers set, and upon the *viva voce* examination.

ERNEST MATTHEWS,
Chairman.

16, Bedford Square, London, W.C.1.
September, 1925.

II—REPORT ON THE RESULTS OF THE THIRTIETH EXAMINATION FOR THE NATIONAL DIPLOMA IN DAIRYING, 1925.

1. The Thirtieth Annual Examination for the National Diploma in the Science and Practice of Dairying was, by the courtesy of the Authorities, held for English candidates at the University College and British Dairy Institute, Reading, from September 4 to 12; and for Scottish candidates at the Dairy School for Scotland, Kilmarnock, from September 18 to 26.

2. Sixty-three candidates presented themselves at the English Centre. Of these, fifty-four took the whole examination,

while eight, who failed last year in the theoretical portion of the examination, and one who failed in Practical Work, were permitted to take those portions again on the present occasion. One candidate attained the "Honours" standard and thirty-nine others were awarded the Diploma.—

ENGLISH CENTRE

Diploma with Honours.

STANTON GIBSON, B.Sc., British Dairy Institute, Reading

Diploma.

LAURA A. ADLINGTON, Midland Agricultural and Dairy College, Kingston, Derby.

CHARLES D. BERRY, British Dairy Institute.

VIOLLET BLOW, British Dairy Institute

CHARLOTTE M. H. BUSH, Lancs. C.C. Dairy School, Hutton, Preston

SARAH CAMPBELL, Lancs. C.C. Dairy School.

MARIAN A. CAWLEY, British Dairy Institute.

ALFRED J. G. CLAY, British Dairy Institute

ISABELLE JOAN DAY, Lancs. C.C. Dairy School

MOULIE DAVIES-COOKE, Studley College, Studley, Warwickshire.

JIVA FAIR DENNY, British Dairy Institute

JOHN DYSON, East Anglian Institute of Agriculture, Chelmsford.

ROSALIND ELFRISHAW, British Dairy Institute

MARY L. FAIRFAX-CHOLMELEY, British Dairy Institute

WINIFRED K. FULLER, Lancs. C.C. Dairy School

PAUL W. B. GATES, British Dairy Institute.

ALAN V. GIBBLERD, British Dairy Institute.

HARRY GATTS HIRST, Midland Agricultural and Dairy College

STANLEY HITCHON, Midland Agricultural and Dairy College.

HELEN HOGGITT, Lancs. C.C. Dairy School

ISABEL MARY HUDSON, British Dairy Institute

BEATRICE MARY HUIS, British Dairy Institute

ROSAMOND JACKSON, Midland Agricultural and Dairy College

REGINALD ALFRED JEFFERY, Midland Agricultural and Dairy College.

MARY KILDWILL, Lancs. C.C. Dairy School

SYBIL KENDRICK-LLOYD, British Dairy Institute

DOROTHY KENNON, University College of Wales, Aberystwyth

JESSIE CROFTSWORTH LAIDLAW, British Dairy Institute

DOROTHY A. C. LONG, British Dairy Institute.

JOHN MILNE, British Dairy Institute.

BIONWALN K. OWEN, British Dairy Institute.

STELLA MARGARET PETERS, Studley College, Warwickshire

THELMA D. PRICE, British Dairy Institute

OLIVE JANET ROBISON, East Anglian Institute of Agriculture

ROLAND S. SULLIVAN, British Dairy Institute

MARY L. TODD, British Dairy Institute

ARTHUR WILLS, British Dairy Institute.

EDWARD B. WEST, British Dairy Institute.

ALLAN HILLYWOOD WILSON, Midland Agricultural and Dairy College.

E. MONICA L. WOOD, British Dairy Institute.

3. Forty-nine candidates were examined at the Scottish Centre. Of these, thirty-four took the whole examination, ten, who had previously passed in the practical part, were permitted to appear for the remaining portion, and five sat for Chemistry and

Bacteriology only. One candidate reached the "Honours" standard, and thirty-four others were awarded the Diploma:—

SCOTTISH CENTRE.

Diploma with Honours.

ARCHIBALD McVICAR, Achanelid, Glendaruel, Argyll.

Diploma.

ISABELLA ALEXANDER, Grudges, Tannach, Wick.

SARAH C. ANDERSON, Schoolhouse, Logie Coldstone, Dinnet, Aberdeen.

A. HUBERT ANGER, 6 Blythiswood Square, Glasgow.

EVELYN S. BAKEWELL, 20 Belmont Road, Aberdeen.

MARGARET BROWN, 45 South Hamilton Street, Kilmarnock.

MARGARET CRAIG, Hollar, Grange, Keswick.

JOHN R. CURRIE, Drumadon, Blackwaterfoot, Isle of Arran.

HELEN M. M. DALE, Bracklynn, Uplawmoor, Renfrewshire.

HARRIET C. DAWSON, Hilton of Fern, Brechin, Forfar.

MARY HELEN DEANS, South Fornet, Dunocht, Aberdeenshire.

MAY DICKIE, Ingram Place, Kilmarnock.

WINIFRED M. DRUMMOND, Ingersoll, Kilmarnock.

ELIZABETH FERGUS, Surrigarth, Skelwick, Westray, Orkney.

JAMES T. GEMMELL, Lochabor, Barnfield, Urnston, Manchester.

BERNARD J. HAINES, Seale Hayne Agricultural College, Newton Abbot.

PHOEBE HALKETT, 19 India Street, Edinburgh.

HUGH McCRAE, 22 St. Leonards Road, Ayr.

ALEXANDER MCGIBBON, Woodside Farm, Cambusbarron, by Stirling.

ANDREW MCKENZIE, 26 Belhaven Terrace, W. haw.

MARGARET M. MACKENZIE, Westfield, Thurso

MARGARET W. MACLEOD, 65 Caledonia Road, Saltcoats.

AGNES ADAM MEIKLE, 96 Albert Drive, Pollokshields.

AGNES R. C. MITCHELL, 12 Wellington Square, Ayr.

MICHAEL V. NENADOVITCH, Ramatcha, Kragujevatz, Serbia.

CHERRIT D. LE ROUX, Vink River, Robertson, South Africa.

ROBERT R. SINTON, Kirkby Thore, Penrith.

JAMES S. SMITH, 20 Kemp Street, Hamilton.

MARGARET STRANG, Grammere, 3 Hamilton Drive, Cambuslang.

STANLEY B. SUMMERS, Colinton, Prestwick.

WALTER WEIR, Burnfoot Cottage, Falkirk.

MARY I. S. WHITELOW, Queen Street, Castle Douglas.

THOMAS W. WILLIAMSON, Dickinson Place, Allonby, Maryport.

AGNES S. P. WHYTE, Newhouse Farm, Hallside.

WILLIAM C. WYLLIE, Whitehill Farm, Sanguhar.

All the candidates at the Scottish Centre had been students at the Kilmarnock Dairy School.

4. The Examiners at both Centres were: Richard H. Evans, B.Sc. (General Dairying, Practical Butter-making and Capacity for imparting Instruction); William Lawson, M.B.E., N.D.A. (Hons.), C.D.A. (Glas.), N.D.D. (Cheese-making); and Dr. J. F. Tocher, D.Sc., F.I.C. (Chemistry and Bacteriology).

Mr. Evans' report is as under:—

"General Dairying—including Dairy Husbandry.—At the Reading Centre most of the candidates appeared to have covered

the syllabus of work fairly thoroughly, and in spite of the fact that, with one or two exceptions, there were no papers of outstanding merit sent in, the work accomplished, both in the written and the oral part of the Examination showed that the students had a fairly good grasp of the subject.

"At Kilmarnock, however, while the candidates appeared to have mastered some portions of the syllabus fairly well, most of them found difficulty in answering the question on the use of bones as manure, as well as that on the construction of farm buildings. Further proof of this weakness was evinced in the oral examination.

"If the 1924 and the 1925 results are compared, it will be seen that the percentage number of those who failed to obtain a Pass mark in the above subject was practically the same at the Reading Centre, but at Kilmarnock there was a decided improvement in this respect. It should be borne in mind, however, that at both centres the number of those who attained Honours standard showed a decided decrease.

"*Practical Butter-making.*—In Practical Butter-making the candidates showed evidence of careful teaching. There is, however, still room for improvement at both centres in the making up of the finished product, and, at the Reading Centre, in the time taken in the carrying out of the work.

"*Capacity for Imparting Instruction to others.*—In this part of the Examination a fair number of the candidates showed good promise of becoming efficient teachers. Failure on the part of some of them to obtain high marks in this branch of the Examination was more often due to nervousness than to any lack of knowledge of the subject dealt with."

In his report, Mr. Lawson states that "Taken as a whole the work of the Candidates in Cheese-making, both written and practical, was satisfactory; at both centres the percentage of failures in written and *vivâ voce* examination was less than in 1924, but, on the other hand, the percentage securing 65 per cent. or over of marks was less than in 1924, the figures being in 1924: Reading, 45 per cent., Kilmarnock, 40 per cent.; in 1925: Reading, 36 per cent., Kilmarnock, 31 per cent. This lack of really good candidates was equally noticeable in the practical work. The percentage of candidates obtaining 85 per cent. of marks or over in Hard Pressed Cheese-making were in 1924: Reading, 35 per cent., Kilmarnock, 58 per cent.; in 1925: Reading, 21 per cent., Kilmarnock, 8 per cent.

"The Candidates had a good general knowledge of the principles of cheese-making, but this knowledge was a little abstract. It would be desirable that candidates should be better able to judge the quality of the cheese made during the examination and recognize where they could have improved the quality of the

finished product. This inability to judge the quality of the cheese made by them was particularly apparent at Kilmarnock, and many who had done well in written work were not able to describe the character of the curd produced.

"The arrangements for practical work at both centres were satisfactory."

Dr. Tocher reports as follows:—

"Since the proportion of failures at Reading last year was 28 per cent. there appears to be a slight improvement in the degree of preparedness of the candidates in 1925 when compared with 1924 at that Centre. The proportion of failures in Kilmarnock last year was very high—53 per cent.—and since the proportion of failures this year is 23 per cent. there appears to be a marked improvement in the degree of preparedness of the candidates at Kilmarnock this year. The candidates generally possessed a better knowledge of the elementary principles of bacteriology than of general elementary chemistry. They appeared, however, to be inadequately prepared in the classification of bacteria generally, and, in particular, as to the fundamental difference between pathogenic and non-pathogenic organisms and their relations to milk supplies. Many of the candidates showed an inadequate knowledge of the fundamental differences between butter and margarine. The want of knowledge on the part of many candidates was evidently due to the fact that there had been no recent study of general elementary chemistry or of the technical branches of chemistry applicable to dairying. A few of the candidates showed a fairly good knowledge of the chemical constitution of the substances met with in dairying. In this connection, however, there appears to be a falling off in the degree of preparedness of the candidates. Many of the candidates showed an inadequate knowledge of the simple methods of chemical analysis of milk and butter. Several blunders were made in answering the simple question bearing on the determination of solids-not-fat in milk."

ERNEST MATHEWS, *Chairman.*

T. B. TURNER, *Secretary.*

16 Bedford Square, London, W.C.
October, 1925.

Year.	Outbreaks.
1918	351
1919	438
1920	479
1921	757
1922	683
1923	646
1924	575
1925	670

In the previous Annual Report it was said that judgment with regard to the success of the Sheep Scab Order of 1923 would have to be suspended, as its most important provision did not come into operation till July 1, 1924. That was the provision which, in any case in which sheep scab was found to exist, laid on the owner the burden of proving that the order had been complied with.

As the order had been in full force for 18 months at the end of 1925, the figures in the table indicate its complete failure to make any impression on the disease.

In view of the failure of all the efforts hitherto made to eradicate the disease the Ministry has prepared a draft order designed to eradicate sheep scab with the minimum of interference with the sheep trade consistent with the object in view. The principal effect of this order will be to ensure that between July 15 and August 31 all sheep throughout Great Britain shall be double-dipped, except in any county declared by the Ministry to be exempt on the ground that it has been free from scab for at least the two preceding years. It will be within the absolute discretion of the Minister to declare a county exempt in which an isolated outbreak of scab had occurred originating from outside sources.

During the period July 15 to August 31, restrictions will be imposed on the movement of sheep from one district to another to prevent evasion of double-dipping and mixing of dipped and undipped sheep.

It is important to notice that the provisions of the Infected Areas Double-Dipping Order of 1920 will continue to be applied by the Ministry to areas where sheep scab is most prevalent or is suspected to exist unreported; but elsewhere, except in infected places, there will be no compulsory dipping and no restriction on movement save during the period July 15 to August 31.

Under the new order, therefore, it will no longer be permissible for local authorities to make regulations requiring the double-dipping of sheep moved into their districts from other counties.

Within recent years the view that the eradication of sheep scab from this country is possible has often been urged upon the Ministry, and the new draft order may be regarded as the answer

to this pressure. It virtually calls upon those who are interested in the sheep industry to decide whether they will accept the measures considered necessary for the eradication of sheep scab, or, alternatively, agree to the continuance of measures that will merely hold the disease in check. The suggested new policy has received the approval of the Council of the Society, and, provided at the same time an increased effort is made to deal with the disease in the mountain regions in which it has hitherto had a permanent home, there appears to be good reason to expect that it will succeed.

SWINE FEVER.

The following table shows the number of outbreaks of the disease during each of the last ten years:—

Year.											Outbreaks.
1916	.	.	.	.	.	.	.	.	.	.	4,331
1917	.	.	.	.	.	.	.	.	.	.	2,104
1918	.	.	.	.	.	.	.	.	.	.	1,407
1919	.	.	.	.	.	.	.	.	.	.	2,305
1920	.	.	.	.	.	.	.	.	.	.	1,816
1921	.	.	.	.	.	.	.	.	.	.	1,262
1922	.	.	.	.	.	.	.	.	.	.	1,390
1923	.	.	.	.	.	.	.	.	.	.	1,968
1924	.	.	.	.	.	.	.	.	.	.	1,441
1925	.	.	.	.	.	.	.	.	.	.	1,643

The table covers the period during which the present method of dealing with the disease has been in operation, and at first sight the facts disclosed in it may appear to prove that the method has failed. A knowledge of the history of the disease prior to 1916, however, suggests a different opinion. For 23 years (1893–1916) the Board of Agriculture applied to the disease measures that were designed to eradicate it. During that period all diseased and suspected pigs were slaughtered, with compensation to the owners, and at the same time serious restrictions on movement of pigs in infected areas were enforced. At one time there appeared to be a good prospect that the methods would succeed, for the outbreaks had fallen from 5,682 in 1894 to 817 in 1905. Unfortunately the latter year proved to be a turning point for the worse, and, by 1914 the annual outbreaks had risen to 4,356. As stamping-out measures had thus failed and were enormously expensive, it was agreed, with the general consent of those specially interested, that the attempt to eradicate the disease should be given up, compulsory slaughter of suspected pigs being abandoned and the loss which the disease entails allowed to fall on the owners, who were encouraged to use anti-swine-fever serum to bring outbreaks to an end. The

new measures were intended to control the disease—not to eradicate it, and that is to be kept in mind in interpreting the figures given in the table. Judged from that standpoint, they are not unsatisfactory, although the outbreaks have been more numerous in 1925 than in the previous year.

PARASITIC MANGE IN HORSES.

The incidence of this disease during the last nine years is shown in the following table:—

Year	Outbreaks	Animals attacked
1917.	2,614	4,873
1918.	4,483	8,422
1919.	5,003	9,773
1920.	3,564	3,812
1921.	2,055	3,108
1922.	1,035	1,454
1923.	789	1,119
1924.	664	950
1925.	513	810

In the last complete year before the war the outbreaks numbered 2,383, and the figures for the last year are therefore highly satisfactory.

FOOT AND MOUTH DISEASE.

The number of outbreaks of this disease confirmed during each of the last five years was as follows:—

Year	Outbreaks	Animals slaughtered as Diseased or Suspected
1921	44	3,085
1922	1,140	55,599
1923	1,854	125,098
1924	1,440	88,726
1925	260	19,963

Tables I and II show the dates of the outbreaks in 1925 and the counties in which they occurred.

No outbreaks were reported in the interval between May 9 and the end of June, and there were three shorter periods during which the country appeared to be free from the disease.

TABLE I

Week ended	Jan 17	Jan 31	Feb 14	Feb 21	Feb 29	Mar 7	Mar 14	Mar 28	April 25	May 2	May 9	July 4
Nottingham	1											
Sussex I		1										
Northampton			1						1	1	1	
Norfolk				1								
Warwick				3	1						1	
Worcester					1							
Chester						1					1	
Isle of Wight							1					
York W Riding								1				
York I Riding												1

TABLE II

Week ended	Aug 1	Aug 22	Sept 26	Oct 10	Oct 17	Oct 24	Oct 31	Nov 7	Nov 14	Nov 21	Nov 28	Dec 5	Dec 12	Dec 19	Dec 26	Dec 31
Southampton	2	1														
Buckingham			1											1		
Dorset				1												
Sussex I					1	1	1		1							
Chester						1	2									
Lancaster						12	32	9	5	2		1	1		2	
Wiltshire						10	11	10	5	6	4	3	2		1	1
York W Riding						5		5	3	2	1	1	1			
Worcester								4	2	3	3	1				
Northampton								4	2	1						
Rutland							2									
Warwick							6		1	1						
Derby								3	2		1	1		1		
Issex								1		2					1	
Oxford								1		1	1	1				
Gloucester									1	4	1	3		1		1
Stafford													3	2		3
Berkshire											1					
Lincoln											2					
Glamorgan											1					
Sussex W												1				

During the last four years the amounts paid in compensation for animals slaughtered in connection with outbreaks have been as follows —

1922	£ 803,529
1923	2,209,781
1924	1,389,696
1925	270,000 ¹

In the preceding annual report reference was made to the question whether the stamping-out method of dealing with out-

¹ The figures for 1925 are approximate only

breaks, which has been consistently followed in this country during the last thirty years, has been justified by the results; and, by way of answer to the question, statistics were given to show, for comparison with those in Great Britain, the number of outbreaks in the nearest countries of Europe in 1923 and the first nine months of 1924. For the same purpose, it has been thought well to include in the present report the following figures ¹ (Tables III and IV) for the years 1924 and 1925. The number of animals attacked with the disease in foreign countries has not been obtainable, and it is important to notice that the figures given in the Tables are those of outbreaks.

TABLE III.

Month, 1924	Great Britain	Germany	Holland	Belgium	France	Denmark
January .	582	1,897	211	436	2,181	2
February .	308	2,188	369	500	1,697	16
March . .	215	2,838	2,397	755	1,633	26
April . .	65	1,148 ²	4,746	1,172	936	23
May . .	33	1,124	9,419	1,506	754	10
June . .	59	1,224	14,914	1,654	1,012	2
July . .	73	1,710	22,581	3,016	2,426	5
August .	57	3,363	20,692	5,116	3,326	6
September	9	3,749	7,757	4,835	1,945	14
October .	16	4,961	3,420	7,166	2,020	122
November .	19	5,985	1,224	6,318	1,057	1,383
December .	4	6,112	1,200	4,813	825	6,332
Totals	1,440	36,299	88,930	37,287	19,812	7,941

TABLE IV.

Month, 1925	Great Britain	Germany	Holland	Belgium	France	Denmark
January .	6	3,710	625	1,237	922	8,050
February .	7	2,286	239	395	613	7,862
March . .	4	1,548	145	253	505	6,491
April . .	2	1,448	275	182	692	4,061
May . .	3	1,171	923	164	629	2,941
June . .	—	2,007	2,243	138	1,000	2,609
July . .	1	3,712	4,491	157	1,641	2,960
August .	3	3,914	7,521	112	1,999	3,542
September	3	2,643	7,823	57	2,351	3,658
October .	96	2,639	4,307	85	3,217	5,108
November	101	2,483	1,205	103	2,044	3,781
December .	35	5,011	1,042	125	1,391	2,554
Totals	260	32,572	31,039	3,008	17,004	53,617

¹ Supplied by the Ministry of Agriculture.² Figures incomplete.

It is obvious that these figures do not directly provide all the information necessary for a close comparison of the loss inflicted by the disease on each of the countries, first, because they do not show the number of animals attacked, and, secondly, because in the continental countries, where the slaughter policy is not in force, no compensation falls to be paid by the State. Fortunately, however, there are indirect methods by which one may form an estimate of the loss sustained by each country.

Facts that have to be noted at the outset are : (1) that the number of outbreaks in this country during the two years included in the above Tables was 1,775, (2) that the total number of animals slaughtered as diseased or suspected in connection with these outbreaks was 121,880 (an average of 68 per outbreak), and (3) that the total amount paid in compensation was £1,659,696 (an average of £15 per head).

Turning now to Tables III and IV it will be seen that during the same two years the outbreaks in Belgium numbered 40,295, and, if one allows 30 animals for each outbreak (instead of 68 in Great Britain), the total number attacked must have been approximately 1,208,850.

The loss falling upon the owners of these animals includes, first, the actual deaths, and, secondly, the deterioration of value in the animals that recovered. With regard to the first of these, it has to be observed that two opposed and equally erroneous opinions appear to be widely held in this country at the present time, the first being that foot-and-mouth disease is usually fatal, and the second that all animals recover from it. The fact is that the death rate varies from 0 to 50 per cent. in different outbreaks, depending upon the nature of the animals (young or old, breeding or non-breeding), the care bestowed on them, and, above all, the virulence of the disease. Wide experience gained during the forty years when the disease prevailed in this country placed the death rate at 3 per cent., but in many parts of Europe during recent years the disease appears to have been of a specially virulent type, and probably 5 per cent. would be a fairer estimate. If, however, it is estimated to have been only 3 per cent., that would mean the actual death from the disease in Belgium of 36,264 animals during 1924 and 1925 ; and if these are valued at £10 per head (instead of the £15 found to be the value of the animals slaughtered in Great Britain) that makes the loss from deaths £362,640. To that there falls to be added the loss from deterioration in the condition and value of the animals that recovered, which at £3 per head amounts to £3,517,758.

Estimated in this way, the total loss which the disease caused to stockowners in Belgium in 1924 and 1925 amounted to £3,880,398. In the same two years the amount paid in com-

pensation for animals slaughtered in this country was £1,659,696.

Anyone can easily estimate in the same way, for himself, what was the probable loss which the disease caused in the other countries included in the Tables, but the case of Denmark requires special notice.

Denmark is the country that most closely resembles Great Britain in matters connected with foot-and-mouth disease. For the most part the country stands detached from the Continent, and on that account it has, like Great Britain, until lately escaped with comparatively little loss from the great wave of outbreaks that has swept over nearly the whole of Europe.

Until towards the end of 1924 the measures adopted to control the disease were fairly successful (*see* Table III), but in November of that year the disease got out of hand, and in the following month over 6,000 outbreaks occurred.

The bare figures in the right-hand columns of Tables III and IV are eloquent of the calamity that would have overtaken animal husbandry in this country if the stamping-out policy had been abandoned in 1922, and which may yet overtake it if stockowners conceal the existence of the disease or neglect to give prompt notification of suspicious symptoms in their animals.

In view of the incompleteness of the information obtainable regarding outbreaks, only an approximate estimate can be formed of the loss inflicted by the disease in foreign countries, but one is on much firmer ground when endeavouring to calculate what it would have cost this country if it had had in 1925 as many outbreaks as Denmark, *viz.* in round numbers 53,000. Judging from the experience of the last four years, each of these would have involved 67 animals, or a total of over $3\frac{1}{2}$ millions, and, on the well-founded calculation that 3 per cent. of these (valued at £15 per head) would have died, and that the deterioration of the remainder would have averaged £3 per head, the total loss inflicted directly on the owners in one year would have been over $10\frac{1}{2}$ million pounds.

This should be measured against the £270,000 which the State paid during the year to prevent what has occurred in Denmark.

And, in conclusion, it must be pointed out that, in consequence of the consistent application of the stamping-out policy, this country continues to have an infinitely better prospect than any of those in which measures of isolation are employed to prevent the spread of the disease.

The experience of the past year gives good ground for expecting that in this country the disease will not again make the alarming headway that it did in 1923 and 1924, but the figures for the other countries hold out no hope of any improvement in the near future.

THE TUBERCULOSIS ORDER OF 1925.

Reference is made to this order here mainly to call attention to the obligations which it imposes on owners of cattle. These relate to (1) notification, and (2) the precautions to be taken with regard to milk and the isolation of suspected animals.

Article 2 of the order makes it the duty of every person who has in his possession or in his charge

- (i) any cow which is, or appears to be, suffering from tuberculosis of the udder, indurated udder or other chronic disease of the udder ; or
- (ii) any bovine animal which is, or appears to be, suffering from tuberculous emaciation ; or
- (iii) any bovine animal which is suffering from a chronic cough and showing definite clinical signs of tuberculosis

without avoidable delay to give information of the fact to a constable of the police force for the area wherein the animal is, or to an Inspector of the Local Authority.

Under Article 11 every animal affected in the manner specified above shall as far as practicable be kept isolated from other bovine animals, and the owner must keep such animals in his possession or under his charge until they have been examined by a Veterinary Inspector in accordance with the provisions of the order and the owner or person in charge has been notified that this Article has ceased to apply to the animals.

Article 10 is as follows : The milk produced by any cow which is, or appears to be, suffering from chronic disease of the udder or tuberculous emaciation or is suffering from a chronic cough and showing definite clinical signs of tuberculosis, shall not be mixed with other milk until the cow has been examined by a Veterinary Inspector in accordance with the provisions of this order, and until either six weeks after the examination have expired to enable microscopical and biological tests to be carried out if necessary or the owner or person in charge thereof has been notified that this Article has ceased to apply to the cow ; and all milk affected by this Article shall forthwith be boiled or otherwise sterilised, and any utensil in which such milk is placed before being so treated shall be thoroughly cleansed with boiling water before any other milk is placed therein. These provisions shall also apply to the milk of a cow in relation to which a notice of intended slaughter has been served from the date of the service of the notice until the slaughter of the animal.

Under Article 4 when a Local Authority receives information that there is reasonable ground for supposing that on any premises in their district there is a cow which is suffering in the manner specified above, their Veterinary Inspector may at all

reasonable hours enter on any part of the premises and examine any bovine animal thereon, and the Veterinary Inspector may require any cow on the premises to be milked in his presence, and may take samples of the milk, and the milk from any particular teat shall if he so require be kept separate, and separate samples thereof shall be furnished. The Inspector may also take samples of the fæces or urine of any bovine animal on the premises, or of any abnormal discharge from any bovine animal thereon.

The occupier of the premises and the persons in his employment shall render such reasonable assistance to the Inspector as may be required for all or any of the purposes of this Article, and any person refusing such assistance shall be deemed guilty of an offence against the Act of 1894.

Under the same Article the consent of the owner in writing must be obtained by an Inspector before he applies the tuberculin test to any cow or bovine animal which in his opinion comes within the terms of the order.

The provisions of the order with regard to cows are intended to secure notification only in the case of animals that are presumably affected with tuberculosis in a manner that involves danger to human health, and it is obvious that the order presupposes on the part of an owner some knowledge regarding the symptoms of tuberculosis of the udder, indurated udder, and chronic disease of the udder.

Briefly stated, the following are the distinctive signs of tuberculosis of the udder.

The disease begins without any of the signs of acute inflammation (heat, redness, or tenderness) and without the marked changes in the amount and appearance of the milk that are usually present in ordinary cases of garget.

Usually the first discoverable sign of tuberculosis of the udder is an induration or hardening of the substance of one or more of the quarters. If the indurated part, while still remaining insensitive to moderate pressure, steadily increases in extent the case is probably one of tuberculosis and ought to be notified forthwith. With the further progress of the disease the milk from the affected quarter diminishes in amount, and eventually becomes decidedly abnormal in appearance, but the owner should not wait for this symptom when those previously mentioned have been detected.

Turning next to the question of what constitutes indurated udder or chronic disease of the udder, it will be gathered from what has already been said that tuberculosis of the udder is nearly always a chronic disease, and that it always leads to

induration of the affected part. There are, however, other forms of udder disease of which the course may become chronic, and which may end in induration of the udder. Some of these may occasion difficulty in diagnosis even to an experienced veterinary surgeon, and that is obviously the reason why the order requires such cases to be notified.

While owners should therefore be advised not to decide in a doubtful case that the disease of the udder is not tuberculous, it may be stated that the chief differences between the tuberculous and the non-tuberculous cases of chronic udder disease are the following :—

1. In tuberculosis of the udder the disease is chronic from the outset, and as it proceeds the affected quarter becomes larger and more and more indurated.

2. In the great majority of non-tuberculous cases of chronic udder disease the quarter at the outset shows the usual signs of acute inflammation (sudden swelling, tenderness, and marked changes in the milk), and when at a later stage induration occurs the quarter usually becomes smaller than it was originally.

In conclusion it may be well to refer to another matter about which the owner or person in charge may feel doubt, viz., the provision of the order with regard to cases of tuberculous emaciation. When in a bovine animal emaciation is the only symptom of disease it is usually not the result of tuberculosis. It may be due to different causes, but when the emaciation is accompanied by diarrhoea and these are the only symptoms the case is probably not one of tuberculosis but of Johne's disease, and notification is therefore not necessary.

RESEARCH.

For the purpose of investigations which are being conducted in the Research Institute at the Royal Veterinary College, members of the Society are invited to communicate with the Director, when the occasion arises, regarding any of the following diseases :—

1. Abortion in Mares.
2. Johne's disease.
3. Outbreaks of udder disease in cows.
4. Outbreaks of fatal diarrhoea in lambs or calves.
5. Cases of quarter-evil or "Struck" in calves or sheep.

J. MCFADYEAN.

Royal Veterinary College,
London, N.W.1.

ANNUAL REPORT FOR 1925 OF THE CONSULTING CHEMIST.

THE number of samples sent by members has been only slightly less than in 1924. The total is 341 as against 355 the previous year. In addition, there were fourteen samples of Cider examined in connection with the Society's Country Show at Chester.

There is little to record in the way of fresh materials coming forward in respect of either fertilisers or feeding stuffs. The use of ground mineral phosphates, principally from North Africa, has, however, considerably increased.

Prices generally have been very stable, more especially as regards fertilisers, and have remained favourable to purchasers.

As regards the prevalence of adulteration, there have been but few instances of this with samples submitted to me by members. Adulteration of offals, however, has been by no means infrequent throughout the country, and the addition of tapioca meal to ground Oats, Barley Meal, etc., has come in as a new form, while, to some extent, the use of ground Rice husk as an adulterant of feeding stuffs still continues.

An instance of the occurrence of Castor Oil bean in Earthnut Cake was brought to light and will be referred to later.

Instances, however, have not been infrequent of considerable variation in the composition of deliveries. This applies more particularly to Basic Slag and North African Phosphates.

In last year's report I referred in some detail to my visit to the Alsace Potash Mines, and to the possibility of competition between these products and those from the German Potash Mines, a competition which was likely to result in advantage to the agriculturist. It would appear, however, that a working agreement has now been come to between the different interests, though happily without, at present, increasing the cost of the materials to the farmer.

Chief among the events of the year has been the continuation of the work of the Departmental Committee on the Fertilisers and Feeding Stuffs Act, subsequent to the issue by that Committee of their report. An Advisory Committee was appointed to draw up schedules and definitions of articles that would come under the provisions of the Act. This Committee—on which the R.A.S.E. was represented by Mr. J. L. Luddington, the Chairman of the Chemical Committee—has duly reported. The draft report was circulated and considered by the Chemical Committee of the R.A.S.E. and a general approval given to it. At the same time, suggestions having been invited, the Chemical Committee sent theirs in, emphasising in particular the following points which seemed to them desirable of inclusion :—

1. That in regard to Feeding Stuffs—where foods are sold under a name indicating that they are made of a single ingredient, e.g. Barley Meal, Bran, Middlings, Bean Meal, etc.—there should be simply a guarantee as to their being *pure*.
2. That in the case of Fertilisers there should be a guarantee that they be in good condition and suitable for application to the land.
3. That the proposed grading of offals is not practicable nor desirable.
4. That materials such as lime, soot, shoddy, etc., should be included under the Act.

These suggestions would appear to have been considered and adopted as far as possible, and it is understood that a Bill is now being drafted on the lines of the report.

The question of Unexhausted Manure Values, chiefly as regards foods consumed on the farm, has again come up and has been considered by a committee of agricultural scientists convened by the Ministry of Agriculture, and subsequently by representatives of those engaged in the work of practical valuation. It was, however, not found possible to come to any definite agreement on the data which at present exist, and the matter is held over for the time being.

Meanwhile, in response to a request from the Central Association of Agricultural Valuers, I went into the matter afresh on the lines and suggestions of the Conferences referred to, and, as the result, I drew up a revised scale for Feeding Stuffs. The main feature of this, besides necessary alterations of unit prices consequent on the fall in value of manurial constituents, consists in the simplification of the Tables by the omission of the third and fourth columns hitherto given (foods used direct on arable or grass land) and the retention only of the two columns for first and second year of application. Experience had shown that the third and fourth columns were but little used in practice, whilst scientific opinion as regards the greater value of cake, etc., fed on arable or grass land has undergone some modification.

A further feature is the inclusion, in the Tables, of Compound Cakes. This step was warranted inasmuch as many of these cakes possess considerable manurial value, and value much above that of corn with which, in many parts of the country, it had been the custom to class them.

The Tables, as revised up to September, 1925, have now been issued by the Central Association of Agricultural Valuers, 2 Whitehall Court, S.W.1, and are obtainable there.

The revival of the issue of "Occasional Notes" giving in-

formation regarding the activities of the different scientific departments of the Society was referred to in last year's Report, and it was hoped that another such issue would be made in 1925. Consequent, however, on the paucity of material which was forthcoming, the issue of this has been postponed.

An interesting feature of the year has been the institution of conferences at the Rothamsted Experimental Station on agricultural topics. It is sought in these to bring together scientists and practical men, the meetings consisting of the reading of short papers followed by discussion and suggestions. Three such conferences have so far been held: the first on March 6 on Green-manuring; the second on May 22 on Lime; and the third on November 20 on the Manuring of the Potato Crop.

These conferences were all increasingly successful, besides affording an opportunity of making the work of the Rothamsted Experimental Station chiefly, and incidentally that of Woburn and other places, better known.

I had the privilege of opening the first two conferences with papers dealing principally with the work done at Woburn on these subjects for many years past.

In the Chemical Department especially—as with the R.A.S.E. and the agricultural world generally—a heavy loss has been sustained by the death of Sir Bowen Bowen-Jones, Bart., who was Chairman of the Chemical Committee from 1901 to January, 1915. Sir Bowen always took a great interest in the work of the Committee and was a good friend of the Woburn Experimental Station, the importance of the work of which he maintained to the end.

Passing to individual subjects which have engaged my attention during the year, I deal with these in succession.

A. FEEDING STUFFS.

1. *Linseed Cake.*

The price of this, starting with £13 2s. 6d. per ton in January, ranged from £13 to £13 7s. 6d. until September, after which it fell to £12 15s., and to £12 5s. in November.

Of the samples sent to me by members I can say that whenever these have been sold as pure, they have been found to be so, and, as a rule, to come up to guarantee.

2. *Cotton Cake.*

Much the same remark applied to this. Decorticated Cotton Cake has seldom come to the fore, though samples of the Meal are occasionally sent. The price of Undecorticated Cotton Cake ranged from £8 5s. per ton to £7 12s. 6d. per ton, at which latter

figure it continues. Bombay Cotton Cake has been about £1 a ton cheaper.

3. *Groundnut (Earthnut) Cake. Occurrence of Castor Oil Bean.*

The price of Groundnut Cake has throughout been £13 5s. per ton.

A case calling for special note occurred in the use, by a member for his cattle, of a mixed food of which Groundnut Cake was one of the constituents. The Groundnut Cake had been separately purchased and consisted of two kinds, one being of thick pieces and purchased in Yorkshire, and the other of thin flakes and purchased at Liverpool.

The member, after mixing the Cake with Cotton Cake and home-grown meals, fed it to his cattle (65 in number), and, shortly after, one of these died and a number of others were found to be in a serious condition.

On analysing the mixed food given to the cattle, I found Castor Oil bean to be present, and, on examining the ingredients separately, I traced the Castor Oil bean to the thin, or flaked, Groundnut Cake, the thick variety and other ingredients being free from it. The injury to the cattle was confirmed by a post-mortem and by veterinary examinations. No other animals died, but all were seriously deteriorated and never got thoroughly well, so that they were eventually sold at considerable loss. The vendors of the cake met the member honourably and a settlement on a liberal scale was come to.

4. *Coconut Cake, Palm-nut Meal, etc.*

A few samples only of these were sent, and there is nothing special to report regarding them.

Coconut Cake ranged in price from £12 per ton to £10 10s. in April, falling later to £10 per ton.

Palm-nut Meal (extracted) cost throughout £7 15s. or £8 per ton.

5. *Rice Meal.*

Italian Rice Meal.

The price of this, beginning at £9 per ton, went down to £8 per ton, at which figure it stands,

There still seems to be some uncertainty as to what Rice Meal should, or should not, be. As has been previously pointed out by me, Rice Meal should properly be the bran or skin covering the inner, or white, grain of the rice, and should not contain the outer husk or "shude." Unfortunately, it not infrequently happens that the true meal is mixed with some of the finely ground and objectionable husk.

At the same time, certain varieties of Rice Meal are known to be always of inferior nature. One such is known in the trade as "Italian" Rice Meal. Under the name of "Fumetta" Rice Meal (Italian), and costing £6 5s. per ton delivered, there was sent to me a sample the analysis of which had been guaranteed. The following, giving these figures and also those of my own analysis, show how widely the two differed:—

	As guaranteed. Per cent	As found Per cent
Moisture	8.64	10.75
Oil	1.85	1.09
Albuminoids	10.50	4.25
Carbohydrates, etc . . . . .	.	39.20
Woody Fibre . . . . .	.	27.73
¹ Mineral matter . . . . .	.	16.98
		<hr/> 100.00
Nitrogen	1.68	0.68
¹ Including Silica and Sand . . . . .	.	15.45

The high percentages of Silica and Woody Fibre shown in my analysis were due to the presence in the meal of the finely ground "shudes," and this meal should not have been sold under the name of "Rice Meal."

The consignment was eventually returned to the vendors.

6. *Compound Cakes and Meals.*

I am able to supplement the good report which I gave last year in regard to the improvement both of quality and in the nature of the materials used in these foods.

These and other considerations have prompted me to advocate the inclusion of compound cakes and meals in my Tables of Unexhausted Manure Values, grading them according to their nitrogenous contents, and not classing them, as was usual before, simply as corn.

The improvement of compound cakes is one of the marked features of later days, and I am free to admit that my views have undergone considerable modification regarding their use. One previously had to regard these cakes with some suspicion because of their often being made the media for the inclusion of materials of practically worthless nature or of doubtful quality. But there is no denying the advantage of a mixed food for stock and the convenience of such feeding, and now that these materials have to be sold by guaranteed analysis and that there has been such all-round improvement in their manufacture, many of the objections previously urged against them disappear.

Notwithstanding what has been said, it is important that the quality of compound foods should be checked, as it occasionally happens, as in the instance now to be mentioned, that foods

stated to be made up in a particular way are found not to comply with the description given.

A sample of Pig Nuts sent me and which was supposed to be composed of 60 per cent. Barley Meal, 30 per cent. Middlings with 10 per cent. Fish Meal, and costing £12 2s. 6d. per ton, was examined and I found that, instead of being mainly Barley Meal, it consisted chiefly of Palmnut Meal, along with Rice, a little Wheat and some Peas, the Fish Meal being, as I stated, "notable rather by its absence than by its presence." On the purchaser complaining, a refund of 50s. a ton was allowed.

7. *Cereals, Offals, etc.*

It is, as stated with these materials that adulteration is found to be most frequent. Besides the admixture of finely ground husk such as that of Oat husk, Rice shudes, etc., a newer form of adulteration, *viz.*, the addition of Tapioca Meal, has recently become prominent. Instances of this are given in the following cases which came under the Fertilisers and Feeding Stuffs Act and with which I was concerned.

(1) *Sussex Ground Oats.*

A sample sold under this name was found to consist of only about 50 per cent. of Oats, the rest being made up of Oat shudes, Wheat, and some Tapioca.

A fine of £10 and £14 costs was inflicted.

(2) *Sussex Ground Oats.*

In this the proportion of Oats was somewhat higher than in the last, but the sample contained Oat shudes, Rice and Wheat in considerable amount.

A fine of £10 and £5 5s. costs was imposed.

(3) "Dan" (Sharps).

This sample, instead of being the pure offal of Wheat, was found to be a mixture, half and half, of coarse Middlings and Tapioca Meal.

A penalty of £3 with £13 10s. 2d. costs was incurred.

A member of the Society sent me a sample of what had been sold to him as a feeding material at £5 10s. per ton delivered. The analysis was as follows:—

Moisture	10.72
Oil	7.44
Albuminoids	8.56
Carbohydrates, etc.	42.98
Woody Fibre	13.56
¹ Mineral matter	16.74
	<hr/>
	100.00
Nitrogen	1.37
¹ Including Sand and Silica.	12.35

I found this to be nothing but a refuse material consisting mainly of finely ground Oat husk and Rice husk. It will be noticed that the analysis showed high percentages of woody fibre and siliceous matter. The presence of Rice husk in particular is very objectionable, and such a material as this should not have been sold as a feeding stuff at all.

EWES' MILK.

The following analysis of milk from a Hampshire Down ewe may be of interest :—

Water	.	.	.	.	.	.	.	72.34
Fat	.	.	.	.	.	.	.	9.65
Solids-not-fat	.	.	.	.	.	.	.	18.01

100.00

B. FERTILISERS.

1. *Superphosphate.*

The price of this has remained very steady. It has been about £3 per ton for 30 per cent. "soluble" and £3 10s. per ton for 35 per cent. "soluble."

In the course of the year an application was made by the manufacturers of Superphosphate to have this particular part of their industry "protected" on account of the unremunerative return consequent on competition from abroad. The application was strongly opposed by the farming interests, and, at first sight, the opposition seemed warranted, inasmuch as any change might result in prices being higher and the farmer having to pay more. On closer examination of the question, it had to be recognised that there was another side to it, and that, in their anxiety to get Superphosphate cheaply, the farming industry might be playing into the hands of foreign manufacturers who, by "under-cutting" as against the home manufacturers, might eventually raise prices, and the farmer might, in the end, have to pay more than at present and find that, meantime, the home industry had been destroyed. Moreover, it was generally recognised that the manufacture of Superphosphate as an item by itself did not pay, and that it was really only for the sake of the making up of compound manures (of which it formed a part) that it was at all remunerative.

It is not for me to discuss the relative merits of the case, but I felt bound to point out to my agricultural friends that there were other interests besides their own immediate ones that had to be taken into consideration.

Though the report of the Committee appointed, under the Safeguarding of Industries Act, to enquire into the subject was not unanimous in its conclusions, the application was in the end not acceded to.

Superphosphate Containing Excess of Moisture.

Superphosphate containing excess of water, and especially any excess of free acid (whether due to sulphuric acid or to phosphoric acid) is apt to destroy the bags in which it is packed, and, in the manufacture, care has to be taken to neutralise any such acidity.

The following case, however, was new to my experience. A member sent me a sample of Superphosphate, complaining that it not only burst the bags in which it was packed, but also that, when put on grass land at the rate of 4 cwt per acre, it scorched this and the grass did not recover for some time.

To all appearance the superphosphate was in good condition, and I did not find it to be more than usually acid, but it had a high percentage of moisture. Though inclined to doubt the statement of the member, I thought it well to try the superphosphate at the Woburn Experimental Farm and see whether it did the damage complained of. My observations confirmed the statement made, and, on comparing with this superphosphate some that I was using myself on the farm, I found that the latter did no damage. Accordingly, I analysed the two superphosphates very completely. They had practically the same amounts of soluble and insoluble phosphates and there was no difference in acidity or in the presence of free phosphoric acid. The sole difference was in the moisture, while my Woburn sample had only 13.2 per cent, the sample complained of had 18.18 per cent of moisture.

The time at which I applied the two superphosphates was in June during a time of prolonged drought. Later on, in July, and after rain had fallen, I repeated the trial and this time I found that *both* superphosphates showed injury for a time to the grass. I can only surmise that, in the first instance, the moister sample remained attached to the blades of grass while the drier one did not adhere but found its way down to the ground surface. When, however, later on, moister conditions prevailed both samples behaved alike and caused a certain amount of injury, though only of a temporary nature. There is very little doubt, however, that the higher moisture was responsible for the bursting of the bags, and this should be guarded against.

2 Basic Slag

Prices of this underwent a steady rise during the year. For 30 per cent 47s 6d per ton was quoted in January and increased to 60s in November. For 35 per cent the prices similarly ranged from 57s 6d to 67s 6d, and for 40 per cent from 67s 6d to 75s per ton.

As a rule, samples were found to be up to quality and well ground, but instances of variation came occasionally to my notice.

A.

		(1)	(2)
		per cent.	per cent.
Total Phosphates	. . .	37.75	42.32
Fineness	. . .	81.3	82.06

B.

		(1)	(2)
		per cent.	per cent.
Total Phosphates	. . .	19.64	26.44
Fineness	. . .	80	81.6

In the case of A the guarantee was for 40 per cent. The first sample showed a distinct deficiency, while the second sample, taken from another part of the delivery, was above the guarantee. On comparing the two samples I found a marked difference of colour between them.

In B the guarantee was 26 per cent. The first sample showed over 6 per cent. deficiency, but a further one was up to guarantee. Here again there was a marked difference of colour between the two samples.

3. *Ground Mineral Phosphates.*

These, more especially North African Phosphates, appear to have been used to a considerable extent and to have taken, in part, the place of Basic Slag, supplies of which have been somewhat short.

With these, however, the same variations of quality as noted in the case of Basic Slag have been at times found. A member who had made a considerable purchase of North African Phosphate under a guarantee of 62-63 per cent. of phosphates and 80 per cent. fineness, sent me a sample which was found to be 10 per cent. deficient in phosphates. He subsequently sent me samples from other lots forming part of the same contract, and the following table shows how considerably these varied.

	A.	B.	C.	D.
	Per cent.	Per cent.	Per cent.	Per cent.
Total Phosphates	52.1	55.85	54.23	56.7
Fineness	80.6	83.6	80.6	83.6

Solubility of Mineral Phosphates.

It had become a practice with some vendors of ground mineral phosphates, or materials very similar to these, to state a guarantee of the solubility of the phosphates according to a method different from that specified under the Fertilisers and Feeding Stuffs Act (2 per cent. citric acid solution). By varying the quantity of the material used, the strength of the solution

and the time occupied, a much higher solubility was shown than would have been the case with the ordinary method

In one instance that came to my notice a guarantee of 95 per cent solubility in citric acid solution was given, whereas when tested by the ordinary method the solubility was found to be only 30 per cent

Such a practice is to say the least, misleading, and gives an unfair comparison with Basic Slag and other phosphates. As a result, however of attention being drawn to this, I am happy to say that the practice has now been discontinued

4 Nitrate of Soda and Sulphate of Ammonia

Nitrate of Soda and Sulphate of Ammonia continue to be the principal purely nitrogenous manures employed on the farm, and the use of the dry, granular and neutral Sulphate of Ammonia appears to have been much extended. Cyanamide and other nitrogenous manures produced from atmospheric sources have, so far, had but a limited use in this country

The price of Nitrate of Soda was £13 per ton at the beginning of the year, gradually lessening to £12 19s 6d while Sulphate of Ammonia commencing at £14 14s per ton, fell, in June, to £12 5s and has since continued at about £1 7s to £12 10s per ton

5 Lime Limestones, etc

	A		B	C
	As guaranteed Per cent	As found Per cent	Per cent	Per cent
Lime	92 14	60 01	50 17	35 21
Oxide of Iron and Alumina	2 66	2 39	2 37	4 95
Silica	55	2 19	5 94	24 75
Moisture, Carbonic Acid, etc	4 65	35 41	41 52	31 09
	100 00	100 00	100 00	100 00

A The differences between the two analyses are in great measure accounted for by the fact that the sample had taken up water and become hydrated. The purchase was one of 50 tons, the price being 36s 6d per ton, delivered. After receipt of my report the vendors made the purchaser an allowance of 10s per ton, or £25 in all. This came from Lincolnshire.

B and C These were two limestones which came from Oxfordshire. It will be noted that B was much the better of the two for agricultural purposes

6. *Sewage Manure.*

	In natural state.	In dried state.
Moisture	82.55	—
¹ Organic matter	9.45	54.15
² Phosphoric Acid . . . . .	.57	3.25
Lime	1.76	10.09
Oxide of Iron and Alumina	1.45	8.34
Carbonic Acid, etc.	1.77	10.14
Insoluble Siliceous matter	2.45	14.03
	100.00	100.00
¹ Containing Nitrogen . . . . .	.71	4.07
Equal to Ammonia . . . . .	.86	4.95
² Equal to Phosphate of Lime	1.24	7.10

This material—which cost 4s. to 4s. 6d. per ton, on the land—was distinctly better than most of its kind, and was quite worth getting for use on land of light, chalky character such as that in question, and which was liable to “burn” and to be deficient in organic matter.

7. *Soil.*

A sample of soil sent me gave the following results:—

(Soil dried at 100° C.)

Organic matter and loss on heating	5.63
Oxide of Iron . . . . .	.30
Alumina . . . . .	.19
Lime . . . . .	.10
Magnesia . . . . .	.13
Potash . . . . .	.16
Soda . . . . .	.01
Phosphoric Acid . . . . .	.02
Sulphuric Acid, etc. . . . .	.01
Insoluble Siliceous Matter	93.45
	100.00
Nitrogen . . . . .	.112

This was, to a depth of about 7 in., a light, peaty, and gritty soil with a sandy subsoil.

The analysis shows it to be extremely poor. It was acid in character and almost destitute of lime, other necessary constituents of fertility being present also in but small amount. I was not surprised to hear that this soil was unsatisfactory for crop growing, and I question, indeed, whether it would “pay” for the application of lime.

The following is a list of the samples sent by Members during the twelve months, Dec. 1, 1924, to Nov. 30, 1925:—

Linseed Cake	8
Cotton Cake and Meal	11
Compound Feeding Cakes and Meals	33
Soya Bean Meal	1
Groundnut Cake	3
Cereals, Offals, etc	35
Superphosphate	6
Compound Manures	17
Raw and Steamed Bones	14
Meat Meal	2
Meat and Bone Meal	7
Fish Meal	7
Basic Slag	21
Slag Phosphate	1
North African Phosphate	10
Sulphate of Ammonia	6
Soot	1
Potash Materials	8
Shoddy	36
Dried Blood	2
Hoofs and Horns	3
Lime, Chalk, etc	14
Milk, Butter, etc	22
Water	26
Soil	17
Miscellaneous	30
	<hr/>
	341

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ANNUAL REPORT FOR 1925 OF THE BOTANIST.

THE information available now shows that the cereal crops of 1925 were satisfactory on the whole. But the unusual number of reports of failures amongst autumn-sown crops leads to the suspicion that a larger acreage than usual had to be abandoned. The adverse climatic conditions beginning at the time of autumn sowing and continuing until late in the spring handicapped wheat and winter oats considerably especially on the heavier types of soil. Possibly as the direct outcome of a long spell of indifferent growing conditions, the incidence of fungoid diseases on these two crops was somewhat unusual. The ordinary pests put in their usual appearance but the losses they gave rise to were not abnormal. Some of the less well known pests were however, more abundant than usual. The most noteworthy of these was "Take All"—that being the well known Australian name for

the disease described as "White-heads" or "Night-Blindness" by growers here who have had the misfortune to find it attacking their wheat crops. The presence of the disease in this country has been recorded from time to time in this *Journal*, but in view of its comparative rarity, the symptoms have not been adequately described. The name "White-heads" sums them up fairly accurately. There is nothing to indicate that a crop has been attacked until the ripening period begins. The infected ears then take on a characteristic bleached appearance and the straw tends to break at soil level. At first sight the damage in a badly infected crop might well be ascribed to sheep getting into it and breaking down straws in all directions. These bleached ears set little or no grain. In a dry season they remain white until harvested, but in 1925 most of those examined had become blackened by the growth of moulds on the dead tissues. At the bases of diseased plants small black patches with the fruits of the fungus *Ophiobolus cariceti* were found. The life-history of the fungus has been worked out in great detail in America, and it has been shown that when infected stubble is ploughed in the spores and mycelium can remain in a living condition for years in the soil. No curative measures have been discovered, and as no sorts of wheat escape its attacks, the disease cannot be dodged by growing resistant sorts. There is some evidence to show that well-grown crops suffer more than others, but as it is the good grower who usually notices diseases most and inquires about them, this may not prove to be the case when fuller knowledge is available.

So far the most serious damage has been caused to crops in Essex, Lincolnshire, and Cambridgeshire. No estimate of the actual losses is possible owing to the inadequacy of the data on the subject. But that they can be serious is shown by the fact that on one field on a Lincolnshire farm the yield of grain was only four hundredweight per acre whilst that of uninfected fields on the same farm was some twenty hundredweights. From Essex came two reports of crops reduced to one half the normal. Such losses are not uncommon in Australia and America. There is, however, no reason for assuming that they are likely to become general in this country. Our systems of rotation safeguard the crop to a great extent and go far towards ensuring starving the fungus out of the soil, whereas where wheat is grown continuously every opportunity is given it to increase. Nevertheless it is unwise to be too optimistic about controlling the disease easily.

A second somewhat uncommon disease appeared in the spring oat crop. This was due to attacks of *Helminthosporium*, which in several cases were so severe that at the end of May the failure of the crops seemed certain. Unexpectedly good recoveries were made, however, and no serious losses were recorded. The disease appears to have been more or less confined to the Abundance oat

and as it can be carried by the seed, there is a strong probability that this useful oat will again be attacked in 1926.

An uncommon and unimportant disease of mangolds was sent in from Norfolk late in the season. The veins running through the leafstalks were discoloured and the centre of the root, after becoming mucilaginous, had dried out. The spongy remains had been utilized for shelter by earwigs which were found in dozens when the roots were sliced across for examination.

Fewer potato diseases were reported on than usual, cases of leaf-curl and mosaic being the only representatives of the large group of pests attacking this crop. Judging from the specimens sent, the leaf-curl was in one instance a particularly severe attack for the lower part of the haulm had shed its foliage. An inquiry brought the expected reply that the "seed" was homegrown and that the crop from which it had been saved was a light one, in turn derived from homegrown seed. It is a particularly poor form of economy to save seed from a crop showing even slight signs of curl or of any virus disease. Unless it is certain that a crop is thoroughly healthy no seed should ever be saved from it, for as infected plants produce small tubers, picking such for seed may well mean directly selecting an infected seed supply.

The unusually virulent outbreak of apple and pear scab which occurred in 1924 was not followed by an exceptionally severe attack in 1925, as seemed probable, and although there was a plentiful stock of dead leaves and infected twigs bearing the fungus the losses from scab do not appear to have been greater than usual. The same seems to have been true of the disease known as chocolate-spot in beans. The epidemic of the previous year was not repeated and though many opportunities for observation were available, not a single badly-infected crop was seen. Many crops in fact were completely free from the disease.

A considerable percentage of the plants sent in for identification again consisted of grasses. One batch of specimens was unusual, for it represented more or less completely the flora of a mountain sheep walk in Radnorshire. The different species comprising it were of unquestionable value under these special conditions, but it was interesting to note that none of them were grasses ordinarily used in the formation of permanent grass land. Various forms of *Agrostis alba*, or Fiorin, were sent in from time to time. The wide range of conditions under which they were found is of interest, as it indicates that this little-used species might be relied upon to help form a permanent turf where many other "agricultural" grasses would fail. It comprised a peaty soil lightly shaded by pines, a very light sandy soil, hillsides in the Lake country, light arable land in Bedfordshire where the grass had become a nuisance, boulder clay and a silt soil near the mouth of the Humber. Its prevalence in the last mentioned

district was known from a report received in 1924 which showed that the greater part of the flora of silt land newly sown with grass seeds consisted of this species. Little is known with regard to its feeding value, and the grass is usually classed as a weed, perhaps too arbitrarily.

Apart from grasses, the usual supply of weeds was received for identification. None of the specimens sent in were of any particular interest. One unusual plant was the thorn apple, isolated specimens of which occur mysteriously from time to time. Its large spiny fruits and distinctive habit of growth make it a striking plant. A second was the rest-harrow, a very common pasture weed in some parts of the country, which nevertheless is rarely included in the year's lists. When well established it ruins grazing almost as effectively as hawthorn. Its early eradication by stocking out or repeatedly cutting over is always advisable. In view of the fact that chickweed is not known to be a poisonous plant it is worth recording that it was again suggested on two occasions to be the cause of the loss of sheep folded on turnips.

Many reports indicate that the comparatively simple prescriptions given in the leaflet dealing with the laying down of land to grass, which was issued two seasons ago by the Society, have produced good results. But questions regarding the management of newly-sown grassland show that some partial failures have occurred, where they were most to be expected, on the heavier soils. Information on the treatment of fields in which the plant was over thin and an excess of weeds present, was required on six occasions. It is difficult to say what is the best course to follow under such circumstances. The ideal is to start again, but the cost of ploughing out, working up a tilth, and re-seeding is prohibitive. The only alternatives appear to be to try to strengthen the existing turf by scratching up the surface with harrows in the early autumn and broadcasting a few pounds of seed, or to apply a dressing of basic slag in the hopes that what grass there is will spread by means of runners through the resulting mats of white clover. The latter is undoubtedly the better plan where ample dressings of slag were not used at the time of sowing.

The most troublesome weed has proved to be the creeping thistle. The conditions provided for the germination of the grass seed suited it well and where this weed was present in the soil it has made the most of its opportunity. The plants should have been pulled during the first season of their growth. This, though often a formidable-looking piece of work, can be done rapidly and effectively. Where this precaution was not taken the plants have become well established and by now they possess a well-developed system of underground stems. Repeated cutting of the tops will be necessary to check their further development and ultimately exhaust the underground runners.

Seed testing during 1925 provided no features of special interest. The number of samples examined was again small, and approximately the same as that of the previous year, the numbers being 76 in 1925 and 82 in 1924. The majority of these were homegrown and so provided an indication that the guarantees under which farm seeds are now sold are considered a sufficient safeguard. The samples stated to be purchased, eight in number, gave on analysis figures for germinating capacity and purity agreeing with those guaranteed by the vendors. The greater part of the homegrown samples were cereals, the germination of which was good with the exception of two samples of black winter oats. One homegrown sample of Harrison's Glory pea was unsatisfactory. Judged by appearance, it was suitable for sowing, but on testing only 70 per cent. of the seeds germinated and the growth was so tardy and many of the seedling roots were so obviously feeble that it seemed certain that under the less favourable conditions of the open field a far smaller percentage would produce plants. The suggestion was, therefore, made that the bulk should not be used for seed.

Questions regarding the choice of varieties of farm crops for special purposes have been almost confined to the suitability for winter sowing of certain oats and barleys. The oat inquiries were prompted by failures during the winter of 1924-5, whilst those on barley were due to the fact that the autumn sowings produced a profitable and, in some cases, exceptionally profitable, crop. Owing to the early establishment of the barley it felt the bad effects of the dry summer less than the spring-sown crop, and its early ripening provided an opportunity for harvesting it safely before the weather broke. In consequence, the autumn-sown seems to have been generally distinctly better than the crop sown at the normal time and in a year when much of the crop was under-average in quality and difficult to market it sold well. Those now tempted to autumn sow on the large scale should remember though that little is known about the winter hardiness of the two-row barley or indeed of the six-row barley generally recommended for the purpose. Of the two-row forms, that is the only forms which realize good malting prices, Archer's is probably the hardiest and the most likely to survive a long spell of adverse conditions. But the fact that this form has been cultivated in this country for a very long time, and that it has only recently found favour for autumn sowing, leads to the suspicion that it may not prove as hardy as it is often considered to be, and that a hard winter might wipe out the crop.

R. H. BIFFEN.

ANNUAL REPORT FOR 1925 OF THE ZOOLOGIST.

INTRODUCTION.

WITH the exception of slugs and snails, which were everywhere unusually destructive, no pests were notified as being especially prevalent during the past season, and it was remarkable how few complaints were received of the insects injurious to cereals. There were, however, a number of cases of special interest if of no outstanding importance. The notes which follow deal with these cases and indicate the general scope of the work of the Department during 1925.

FARM AND GARDEN CROPS.

Slugs and Snails.—The outstanding pests of the year in this section have been slugs and snails. Every kind of plant has suffered from their attacks, and though this is annually the case to some extent, their abundance during the past year was quite unusual, and in some localities they were trapped and destroyed in large numbers with scarcely any effect on the plague.

Against slugs on plants of the cabbage tribe and on dwarf beans Mr. W. H. Lawrence has been using with good success an alum wash—1 lb. alum and $\frac{1}{2}$ -lb. burnt lime to five gallons of water—applied with an ordinary watering-can. He gives two applications in the evening with an hour's interval—say, at 7 p.m. and 8 p.m.

Cabbage Caterpillars.—The Cabbage Butterfly ("Large White," *Pieris brassicae*) is a local pest, and its attacks may be severe in some districts, while it is practically absent in others. In the neighbourhood of Cambridge it was especially abundant in 1924. In the autumn of that year large numbers of the chrysalids were collected, and most of them proved to be "ichneumon stung," and were presently surrounded by clusters of the pale-yellow ichneumon cocoons popularly supposed to be "caterpillar's eggs." These parasites had so effectively destroyed the brood that cabbage butterflies were absolutely rare in this district in 1925, and though, as I have said, this does not hold for the whole country, a similar phenomenon seems to have been observed in several other districts.

The "Small White" butterfly (*P. napi*) was as abundant as usual, and its habit of laying its eggs singly on the leaves while its caterpillar soon goes for the heart of the plant, make it difficult to control. It is much earlier than the Large White, and was doing harm at the beginning of July. Later in that month

a particularly destructive attack by yet another caterpillar was observed in certain plots of brassica plants, and these proved to be the larvæ of the "Garden Pearl" moth, *Pionca forficalis*. This moth, belonging to the little-studied group of Pyralidæ, has often been recorded from cabbage plants, but it appears to be greatly on the increase in some districts, and cases were observed where the destruction wrought by it exceeded that of all the other cabbage caterpillars, the leaves of the plant being quite skeletonized. The caterpillars of this moth go into the earth to pupate, and their cocoons are covered with particles of soil. The moths come out in August and September, and are attracted by light. Mr. Theobald records having captured as many as twenty on a single night early in September by means of a light trap.

A New Capsid Bug.—Almost simultaneously dwarf beans near Cambridge and potatoes near Reading were observed to be attacked by an insect not long known to be present in England, and certainly not hitherto recorded as injurious in this country. This was a small Capsid bug, scientifically known as *Halticus saltator*. It is perhaps hardly likely to prove a serious pest, but its sudden appearance deserves to be noted. At a glance it would certainly be taken for one of the "flea-beetles," for it is a small black insect with great powers of leaping, as its scientific name implies. Further examination, however, shows it to be one of the bugs (Hemiptera) with the typical sucking mouth-parts, and the leaves are not devoured but are caused to shrivel from loss of sap, just as in the case of aphids or frog-hopper attack. In the Cambridge instance dwarf beans were noticed to be failing in July, and the injury was found to be chiefly due to these bugs, though some other species of Capsids were present. Rather later they appeared in some numbers on runner beans, which also suffered to some extent, but it was remarkable that a thorough search of the garden revealed a plentiful supply of the bugs on phlox plants, which, however, showed no signs of injury.

A careful investigation of neighbouring gardens and allotments failed to yield a single specimen of the bug, and its sudden appearance at an isolated spot remains unexplained.

The Pea Leaf-miner.—In July I received some specimens of pea plants with the leaves almost entirely destroyed, and the closest examination revealed nothing as to the cause of the trouble. It was only on receiving a third consignment of specimens that the pest at work was found to be the leaf-mining maggot of a fly—*Phytomyza pisi*. At an earlier stage of the attack the nature of the injury would have been manifest, for the mining maggots feed on the interior of the leaf, leaving the upper and lower skins intact, causing "blisters," but here the

lower epidermis had entirely perished, so that the wounds had the appearance of having been excavated by some external feeder working on the under-side of the leaf.

Small and insignificant attacks of the pea leaf-miner are not uncommon, but it is clear that this pest is capable of working much havoc if unchecked.

Cockchafer.—A particularly bad attack by cockchafer grubs was notified from the neighbourhood of the New Forest, the roots of all manner of plants being destroyed. Of our three common English chafers, this is the most local in distribution and the most dependent on the neighbourhood of woodland, and it is indeed more of a forest than an agricultural pest, the grubs eating the roots of seedlings in the nurseries, while the beetles defoliate the trees—preferably the oak and elm. The smaller summer chafer, which is often mistaken for it, is much more widely spread and of different habits, its grubs preferring grass roots, while the beetles are far less destructive to foliage. The still smaller garden chafer is most noticed as a leaf-eater of all kinds of garden trees, and it is not very often that the harm its grubs certainly inflict on plant roots is brought home to it. It is natural, therefore, that bad attacks on farm crops by cockchafer grubs should almost always be in the close neighbourhood of woodland.

None of the numerous measures which have been tried against this pest in the larval condition have had much success—except the obvious plan of turning the grubs up for the birds by frequent cultivation. The best results have always been obtained by fighting the insect in the beetle stage. In this country its life-history extends over four years, and in districts where it abounds it is generally noticed to be particularly abundant every fourth year. These “flight years” are utilised on the Continent to make special raids on the beetles as they cling to the leaves of the trees on the outskirts of woods in May or June. On hot, bright days they are very sluggish, and, when beaten down by poles, are easily collected before they fly away. Incredible numbers of cockchafers are thus destroyed—emptied by the sackful into cauldrons of boiling water—in the forest regions of Germany. Many years ago Taschenberg recorded some startling statistics. For example, in one season in the neighbourhood of Leipzig the bag amounted to nearly eight thousand bushels of the beetles, estimated to comprise more than 378 million individuals.

Mangold-fly.—This pest, always present more or less, was the subject of frequent complaints during the past season. The fly, *Pegomyia betæ*, lays its eggs in May and June on the underside of the leaves of mangold and beet, and the grubs which hatch out are leaf-miners—feeding on the interior of the leaves, which

are blistered and ultimately destroyed. It will attack sugar beet, but seems very much to prefer the mangold plant, and this suggests that a ring of mangolds might be of use as trap-plants round a crop of sugar beet in districts where beet is found to suffer greatly from the fly.

At an early stage of the attack a paraffin emulsion spray has been found useful in preventing the flies from laying their eggs, and a top dressing of nitrate of soda, if there is likelihood of rain, will help to force on the crop to a less vulnerable stage. With older plants there is little to be done except to remove and destroy as far as is practicable the blistered and rotting leaves, and so prevent the maggots and "fly cases" they contain from giving rise to flies to do further harm.

Other Pests.—Other insects concerning which advice was asked in this section were turnip-fly, black aphid on beans, celery-fly—of which there were severe attacks somewhat late in the season—and white-fly (*Aleurodes*), both in the open and under glass. Of these there is nothing of special interest to report.

FRUIT PESTS.

Cherry Fruit-fly.—This insect, at present happily not found in our orchards, aroused more interest among fruit growers than any of our indigenous pests during the past season, for two reasons. It was found that early cherries imported from the continent were so infested with maggots as to disgust buyers of that fruit and interfere with the sale of perfectly sound home-grown cherries when they came on the market. In the second place there was a very natural fear lest so disastrous a pest should, by constant importation, obtain a footing in our own fruit gardens.

Flies of the genus *Rhagoletis* have for a long time been troublesome in the United States on various kinds of fruit, and for several years past *R. cerasi* has become established in numerous localities on the Continent, and a large proportion of the cherries annually imported into this country prove to be attacked. This was notably the case during the past season, and gave rise to much anxiety.

As regards the falling off in the demand for British cherries, buyers may be assured that home-grown fruit is *at present* sure to be free from the maggots, and may be purchased with confidence. It is impossible, however, in most cases, to know where the cherries have been grown, and it is quite likely that imported cherries are sometimes sold as the product of our own orchards.

The question of the possibility of the pest establishing itself here is even more important. The case stands thus: Infested cherries show little external sign of injury, but on being opened,

are found to contain a maggot. On these being detected, the rest of the sample will most likely be thrown on the nearest rubbish heap, or by the wayside. The grubs will leave the discarded cherries and will presently become flies, ready to attack any cherry trees in the neighbourhood in the following season. Some comfort is derived from the fact that though for several years past infested cherries have been constantly imported, the fly has not hitherto been able to establish itself. This *may* be because of unsuitability of climatic conditions, and one hopes that it is so, but the insect is already established on the continent in places where the climate differs very little from our own, and it is very unsafe to conclude that it cannot flourish here. Most of the imported cherries are consumed in the towns, where, if the flies survive, there are no cherry trees for them to operate on, but it is always possible that maggoty cherries thrown by the wayside—say from a motor-car—should give rise in due course to flies which would find themselves in more favourable circumstances. In any case there would seem to be considerable grounds for urging some restriction on the importation of infested fruit.

Plum Saw-fly.—This pest, of which I have received no complaints for some years, was very troublesome in certain districts during the past season. The saw-fly, *Hoplocampa fulvicornis*, lays its egg in the calyx of the blossom, and the “caterpillar” bores into the developing fruit, destroying the kernel, and causing the infested fruit to fall at a very immature stage half an inch to an inch in length. A single grub will attack more than one plum, so that, even on the tree, some of the injured plums will show a small exit hole, but have no caterpillar inside. In any case, the caterpillar leaves the fallen fruit to enter the soil to turn to a chrysalis.

It seems important to collect at once and destroy the prematurely fallen plums—and by jarring the branches, some of the injured fruit still on the tree may be shaken down. The winter is passed by the caterpillar in the earth, where it surrounds itself with a cocoon, and waits until the following spring to pupate. It may be possible, therefore, in some cases, to prevent the appearance of next year’s saw-flies by suitable treatment of the ground beneath the trees.

Big-bud in Black Currants.—Two years ago I called the attention of Members to Sir George Watt’s suggestion that the Black Currant Gall-mite might be combated by firing the bushes during the winter. So far I have been unable to persuade any fruit-grower to test the method on a fairly large scale, but two small experiments are now being carried out in different parts of the country, and it is hoped that something may be learnt from them. One should be especially instructive since, simultaneously

with the burning of one plot, another plot was re-stocked in the usual manner, and as time goes on it will be possible to compare the yield year by year in the two cases. Of course neither plot produced anything in the past season, and all that can be reported is that the plants which had been fired have made extraordinary growth. The results next season will be looked forward to with interest. Meanwhile Mr. Goude's plan of obtaining mite-free from infested plants by taking "green" cuttings is being widely practised. It will be remembered that the method is to take the new shoots in May, before the mite has entered the new buds, and to wash them in order to kill wandering mites before striking them in a frame. They grow vigorously, and by September are strong enough to be transplanted.

Other Fruit Pests.—There were inquiries with regard to several other insect pests of fruit about which there is nothing of special interest to report. They include woolly aphis; the small ermine moth; Capsid bugs on apples; raspberry beetle (especially destructive on cultivated blackberries); and various kinds of "red spider."

FOREST PESTS.

Larch Insects.—The larch "case-worm,"—*Coleophora laricella*—was among the forest pests inquired about, and of course the larch-bug, *Chermes laricis*, was abundant in many districts. Spraying as a remedy for larch-bug is hardly a practical proposition in forestry, and is seldom resorted to, cultural measures, such as judicious thinning and the admission of light and air, being generally relied on to counteract the pest. There is no reason, however, why spraying should not be practised in the treatment of trees on a smaller scale, and the use of a paraffin emulsion was recommended, and was entirely successful, in a case reported from Herefordshire in May last. At the end of July Mr. Harley wrote: "Since spraying the young larch trees the *Chermes* has practically entirely disappeared. The bark of the trees is now clean and no longer scaly as it was in the spring, and all the trees have grown well. This time last year we could hardly see the trees for the bug."

Poplar Bud-moth.—My attention was called in June to poplar trees which were evidently being seriously attacked by some insect. Examination proved the cause of the trouble to be a minute moth, *Gypsonoma aceriana*, of which I had never previously received complaints. The work of this moth is characteristic and easy to recognise from the curious little hollow brown cylinders, much like aborted catkins, in the axils of the leaves where the caterpillar has been feeding. The moth lays its eggs in the summer under the leaves, on which the caterpillars feed for a time, but in the autumn they bore into the shoot at the

base of the leaf, and the tunnel they make is produced externally into the hollow cylinder above mentioned, which is made of silk covered by the caterpillar's excrement, and is about half an inch long. Such shoots as recover from the injury shew a gall-like swelling and a conspicuous scar where the wound has healed over, but many are killed outright.

Very few caterpillars were still to be found in the shoots when my attention was called to the matter ; nearly all had left to turn to chrysalids and moths. Severe pruning early in June, so as to prevent the emerging of the new brood of moths, might be beneficial.

Populus alba was the species concerned, but all varieties of poplar are subject to this pest.

MISCELLANEOUS PESTS.

Wood Borers.—Furniture beetles are often the subject of inquiry in this department, the "death watch" beetle, *Anobium domesticum*, being usually the pest in question. The most interesting case reported in 1925 concerned the large wood borer, *Xestobium tessellatum*, notorious for its ravages in public buildings such as Westminster Hall. It is a great plague in churches—indeed the late Dr. David Sharp used to call it the sacrilegious beetle.

In March last a correspondent wrote to say that a certain church in the Midlands had formerly harboured a large number of bats, but that these had been cleared out a few years ago. Soon after their removal evidences of beetle attack began to be observed, the floor in certain parts of the church being littered with "sawdust" and dead beetles, and the pest was clearly on the increase.

No one, as far as I can ascertain, has previously suggested any relation between bats and beetle attack, but on consideration of the matter it seems entirely probable that these animals would be useful in checking the rapid spread of the infestation. The grubs boring in the timber would, of course, be beyond their reach, but the beetles crawling or flying to new places of attack would no doubt be devoured. I communicated the circumstances to the late Prof. Maxwell Lefroy, who had made a special study of these insects. He wrote : "I have never had any case of the kind ; there is no evidence of any connection between bats and beetles ; it is certainly extremely interesting. Personally I should recommend the people to reinstall the bats !"

I am told that a few bats have now reappeared in the church and are to remain undisturbed.

Wasps.—A correspondent sent in April last a number of wasps for identification and especially for verification of the fact that they were all queens. Rewards had been offered for the capture of wasps during the winter, and some 2,000 specimens

had been collected. Those sent were queens of the species *Vespa vulgaris*—one of two species nearly equally common in this country. The sender kindly promised to inform me of the results, if any, of this extraordinary slaughter of queen wasps—if all were queens—in a particular district in reducing the summer wasp plague, but the report is not yet to hand. As is well known, the only members of the wasp community to survive the winter are the queens, and as the summer approaches each makes the nucleus of a nest and has to rear without assistance the first batch of grubs, feeding them on insects in all but the earliest stage of their life. In about a month these have developed into worker wasps, and henceforward all the building and feeding operations are undertaken by them and their successors, the queen having nothing further to do but to lay eggs in the cells which they provide. It follows that each hibernating wasp is the potential foundress of a nest, and, where these insects are too numerous, the destruction of any examples found during the winter is very desirable. The *extermination* of wasps is, however, by no means to be desired, for in the course of rearing their young they kill incredible numbers of insects, many of them, such as the crane-fly, among our agricultural pests.

Animal Parasites.—Inquiries often reach this department which are more appropriate to the Department of Veterinary Science, and among such in 1925 were questions about pig-lice, and demodicic mange in dogs. An application of an unusual nature had reference to a plague of mosquitoes, to combat which it was proposed to undertake large and costly operations in connection with a lake on the estate. This was not recommended, as it appeared to be unnecessary and of very doubtful utility. The mosquitoes which infest houses are generally bred close at hand—in tanks, water butts, cess-pools, etc., and not in a lake some distance away. The clearance of brush from the borders of the lake was advised, but it was recommended that special attention should be directed to breeding places in the immediate neighbourhood of the buildings. The use of mosquito traps in the garden was also advocated. The insects resort in the day-time to cool and dark retreats, and traps based on this habit are exceedingly effective.

CECIL WARBURTON.

Schools of Agriculture,
Cambridge.

Royal Agricultural Society of England.

(Established May 9th, 1838, as the ENGLISH AGRICULTURAL SOCIETY, and incorporated by Royal Charter on March 26th, 1840.)

Patron.

HIS MOST GRACIOUS MAJESTY THE KING.

President for 1926.

LORD DESBOROUGH, G.C.V.O.

Year when
first elected
on Council

Trustees.

- 1919 H.R.H. THE PRINCE OF WALES, K.G., *York House, S.W.1.*
- 1922 H.R.H. THE DUKE OF YORK, K.G., *White Lodge, Richmond Park.*
- 1905 ADEANE, CHARLES, C.B., *Babraham Hall, Cambridge.*
- 1895 BEDFORD, Duke of, K.G., *Woburn Abbey, Bedfordshire.*
- 1893 CORNWALLIS, Col. F. S. W., *Linton Park, Maidstone, Kent.*
- 1885 COVENTRY, Earl of, *Croome Court, Severn Stoke, Worcestershire.*
- 1887 CRUTCHLEY, PERCY, *Sunninghill Lodge, Ascot, Berkshire.*
- 1898 DEVONSHIRE, Duke of, K.G., *Chatsworth, Bakewell, Derbyshire.*
- 1904 GREENALL, Sir GILBERT, Bart., C.V.O., *Walton Hall, Warrington.*
- 1899 NORTHBROOK, Earl of, *Stratton, Micheldever, Hampshire.*
- 1881 PARKER, Hon. CECIL T., *The Grove, Corsham, Wiltshire.*
- 1891 STANFORTH, Lt.-Col. E. W., C.B., *Kirk Hammerton Hall, York*

Vice-Presidents.

- 1897 COLTMAN-ROGERS, C., *Stanage Park, Bucknell, Salop.*
- 1908 DERBY, Earl of, K.G., *Knowsley, Prescot, Lancashire*
- 1924 DESBOROUGH, LORD, G.C.V.O., *Taplow Court, Buckinghamshire*
- 1900 GREAVES, R. M., *Wern, Portmadoc, North Wales*
- 1910 HARLECH, LORD, *Brogintyn, Oswestry, Shropshire*
- 1903 HARRISON, WILLIAM, *Albion Iron Works, Leigh, Lancashire.*
- 1904 MATHEWS, ERNEST, C.V.O., LL.D., *Elmodesham House, Amersham.*
- 1915 PORTLAND, Duke of, K.G., *Welbeck Abbey, Worksop, Notts.*
- 1914 POWIS, Earl of, *Powis Castle, Welshpool, Mont*
- 1909 HAZLEBICK, Sir ARTHUR G., Bart., *Noseley Hall, Leicester*
- 1905 RICHMOND AND GORDON, Duke of, K.G., *Goodwood, Chichester*
- 1907 YARBOROUGH, Earl of, *Brocklesby Park, Habrough, Lincolnshire.*

Ordinary Members of the Council.

- 1922 ALEXANDER, HUBERT, *The Croft, Sully, near Cardiff (Glamorgan)*
- 1923 ASHTON, T. W., *Estate Office, Hursley Park, Winchester (Hampshire).*
- 1905 AVELING, THOMAS L., *Pettings Court, Wrotham (Kent).*
- 1925 BARBOUR, Major ROBERT, *Bolesworth, Tattenhall (Cheshire).*
- 1924 BARTON, BERTRAM H., *Straffan House, Straffan, Co. Kildare (Ireland).*
- 1911 BEHRENS, Major CLIVE, *Swinton Grange, Malton (Yorks, N. Riding).*
- 1922 BELL, JOHN, *The Hall, Thrusk (Nottinghamshire)*
- 1921 BLEDISLOE, LORD, K.B.E., *Lydney Park (Gloucestershire)*
- 1922 BROCKLEBANK, Rev. C. H., *Barlow House, near Cambridge (Cambridgeshire).*
- 1906 BROCKLEHURST, HENRY DENT, *Sudeley Castle, Winchcombe (Glos.).*
- 1910 BROWN, LAUIS, *Marham Hall, King's Lynn (Norfolk).*
- 1918 BURKE, U. ROLAND, *Chatsworth, Bakewell (Derbyshire).*
- 1923 BURKITT, WILLIAM, *Grange Hall, Bishop Auckland (Durham).*
- 1921 BURRELL, Sir MERIK K., Bart., *Knepp Castle, Horsham (Sussex).*
- 1905 CARE, RICHARDSON, *Mill Lawn, Burley, Brockenhurst, Hants. (Hertfordshire).*
- 1919 COMBES, DANIEL, *Dinton Manor, Salisbury (Wiltshire).*
- 1924 COTTERELL, Sir JOHN R. G., Bart., *Garnons, Hereford (Herefordshire).*
- 1921 COURTHOPE, Col. Sir G. L., Bart., M.C., M.P., *Whitgh (Sussex).*
- 1917 CURRIE, Col. EDWARD, *Ilton Court, Chepstow (Monmouthshire).*
- 1921 DAVIES, DAVID, M.P., *Plas Dinam, Llandinam (North Wales).*
- 1923 DICKIE, ROBERT, *Knockenysg, Sanguhar (Scotland).*
- 1923 DISBROWE-WISE, Lt.-Col. H. E. D., C.B.E., *Walton Hall, Barton-on-Trent (Derbyshire).*
- 1913 EVENS, JOHN, *Burton, near Lincoln (Lincolnshire).*
- 1905 FALCONER, JAMES, *Northbrook Farm, Micheldever Station (Hampshire).*
- 1921 FENWICK, E. GUY, *North Luffenham Hall, Stamford (Rutland).*

Year when
first elected
on Council.

Ordinary Members of the Council (continued).

- 1906 FITZWALTER, LORD, *Goodnestone, Canterbury (Kent)*.
 1924 *GARRETT, COL. FRANK, C.B.E., *Aldringham House, nr. Leiston, Suffolk*.
 1922 GATES, B. J., *Wing Park, Leighton Buzzard (Buckinghamshire)*.
 1916 GILBEY, SIR WALTER, Bart., *Elsenham Hall, Elsenham (Essex)*.
 1921 GROOM, HUBERT, *Northgate House, Warham, Wells (Norfolk)*.
 1925 GREENWELL, SIR BERNARD E., Bart., *Marden Park, Woldingham (Surrey)*.
 1925 HALE, WINDHAM E., *Mowbreck Hall, Kirkham (Lancashire)*.
 1925 HALL, J. HERBERT, *Hill House, Mobberley, Knutsford (Cheshire)*.
 1905 HARRIS, JOSEPH, *Brackenburgh Tower, Carlisle (Cumberland)*.
 1905 HISCOCK, ARTHUR, *Manor France Farm, Blandford (Dorset)*.
 1919 HOBBS, ROBERT, *Kelmscott, Lechlade, Glos. (Oxfordshire)*.
 1923 HOWKINS, BENJAMIN, *Bromham, Bedford (Bedfordshire)*.
 1923 JOHNSTONE, Capt. G. H., *Trewithen, Grampond Road (Cornwall)*.
 1912 LANR-FOX, Col. Rt. Hon. G. R., M.P., *Bramham Park, Boston Spa (Yorks, W. Riding)*.
 1918 LLEWELYN, Col. C. VENABLES, *Llysdinam, Newbridge-on-Wye (South Wales)*.
 1909 LUDINGTON, J. L., *Wallington Hall, King's Lynn (Cambridgeshire)*.
 1909 MANSSELL, ALFRED, *College Hill, Shrewsbury (Shropshire)*.
 1922 MATTHEWS, FRANK P., *27 Cavendish Square, W.1 (London)*.
 1904 MIDDLETON, CHRISTOPHER, *Vane Terrace, Darlington (Durham)*.
 1922 MIDDMAY OF FLETE, LORD, *Flete, Ermington S.O. (Devon)*.
 1922 MILN, G. P., *Abbot's Lodge, Chester (Cheshire)*.
 1916 MOUNT, SIR WILLIAM A., Bart., C.B.E., *Wasing Place, Reading (Berkshire)*.
 1911 MYATT, JOHN, *Lincoln House, Shenstone, Lichfield (Staffordshire)*.
 1922 NEILSON, R. B., *Holmwood, Sandway (Cheshire)*.
 1922 NEWTON, SIR DOUGLAS, K.B.E., M.P., *Croxtan Park, St. Neots (Huntingdonshire)*.
 1915 OLIVER-BELLASIS, Capt. R., *Shilton House, Coventry (Warwickshire)*.
 1910 OVERMAN, HENRY, *Weasenham, King's Lynn (Norfolk)*.
 1925 PAGET, LEOPOLD C., *Middlethorpe Hall, York (Yorks, W. Riding)*.
 1909 PATTERSON, R. G., *Acton Hill, Stafford (Staffordshire)*.
 1912 PERKIN, A. W., *Greenford Urcen, Harrow (Middlesex)*.
 1925 PIPER, JAMES, *The Grange, Burntisland, Fife (Scotland)*.
 1921 PLATT, Major ERIC J. W., *Gorddinos, Llanfairfechan (North Wales)*.
 1916 PRICE, F. HAMLYN, *7 Harley Gardens, The Boltons, S.W.10 (London)*.
 1924 *RANSOME, EDWARD C., *Highwood, Ipswich*.
 1905 REA, GEORGE GREY, *Doddington, Wooler R.S.O. (Northumberland)*.
 1923 SAMPLE, C. H., *29 Grainger Street West, Newcastle-on-Tyne (Northumberland)*.
 1922 SHERWOOD, S. R., *Playford, Ipswich (Suffolk)*.
 1921 SILCOCK, T. B., *Arthfield House, Poulton-le-Fylde (Lancashire)*.
 1907 SMITH, FRED, *Deben Haugh, Woodbridge (Suffolk)*.
 1921 *SOMERVILLE, Prof. W., M.A., D.Sc., *School of Rural Economy, Oxford*.
 1912 STRACHIE, LORD, *Sutton Court, Pensford (Somerset)*.
 1923 STRAKER, FREDERICK, *Angerton Hall, Morpeth (Northumberland)*.
 1922 STRUTT, Hon. EDWARD G., C.H., *Whitelands, Hatfield Peverel (Essex)*.
 1923 TANNER, E. CRAIG, *Eyton-on-Severn, Cross Houses (Shropshire)*.
 1920 THORNTON, F. H., *Kingsthorpe Hall, Northampton (Northants)*.
 1907 TINDALL, C. W., *Park House, Louth (Lincolnshire)*.
 1923 TOMKINSON, Major C. W., *Willington Hall, Tarporley (Cheshire)*.
 1923 TWENTYMAN, J. R., *Kirby Misperton Hall, Pickering (Yorks, N. Riding)*.
 1924 WAKEFIELD, JACOB, *Sedgwick House, Kendal (Westmorland)*.
 1925 WEIGALL, Lt.-Col. Sir ARCHIBALD G., K.C.M.G., *Petwood, Woodhall Spa (London)*.
 1889 WHEELER, Col. E. VINCENT V., *Newnham Court, Tenbury (Worcs.)*.
 1921 *WHETHAM, C. DAMPIER, M.A., F.R.S., *Upwater Lodge, Cambridge*.
 1918 WICKHAM-BOYNTON, T. L., *Burton Agnes Hall (Yorks, E. Riding)*.

STANDING COMMITTEES.

* * Under Byo-Law 73, the PRESIDENT is a Member *ex officio* of all Committees, and the TRUSTEES and VICE-PRESIDENTS are Members *ex officio* of all Standing Committees except the Committee of Selection and General Purposes.

The Honorary Director is a Member ex officio of all Committees.

Finance Committee.

ADEANE, C. (<i>Chairman</i>)	AVELING, T. L.	GREAVES, R. M.
DEVONSHIRE, Duke of	BURKE, U. ROLAND	HARRISON, W.
NORTHBROOK, Earl of	CARR, RICHARDSON	MANSSELL, ALFRED
BURRELL, Sir MERRIK R.	CORNWALLIS, Col.	MATHEWS, ERNEST
COURTHOPE, Sir G. L.	CRUTOHLEY, PERCY	WHEELER, Col.
GREENALL, Sir GILBERT		

Journal and Education Committee.

CORNWALLIS, Col.	HAZLERIGG, Sir A. G.	MANSSELL, ALFRED
(<i>Chairman</i>)	ADEANE, C.	MATHEWS, ERNEST
BLEDISLOE, Lord	BROCKLEBANK, Rev. C. H.	SOMERVILLE, Prof.
FITZWALTER, Lord	BURKITT, W.	PRICE, F. HAMLYN
MILDMAY OF FLETE, Lord	COLTMAN-ROGERS, C.	WHEELER, Col.
BURRELL, Sir MERRIK R.	DISBROWE-WISE, Lt.-Col.	WHETHAM, C. D.
COURTHOPE, Sir G. L.	LUDDINGTON, J. L.	

Chemical Committee.

LUDDINGTON, J. L.	BURKITT, W.	PATTEBSON, R. G.
(<i>Chairman</i>)	FALCONER, J.	SAMPLE, C. H.
BLEDISLOE, Lord	GREAVES, R. M.	SILCOCK, T. B.
HARLECH, Lord	MIDDLETON, C.	SMITH, FRED
COTTERELL, Sir JOHN	NEILSON, R. B.	SOMERVILLE, Prof.
BROCKLEHURST, H. D.	OLIVER-BELLASIS, Capt. R.	WHETHAM, C. D.

Botanical and Zoological Committee.

COLTMAN-ROGERS, C.	ASHTON, T. W.	CORNWALLIS, Col.
(<i>Chairman</i>)	BARBOUR, Major R.	LLEWELYN, Col.
FITZWALTER, Lord	BROCKLEHURST, H. D.	MILN, G. P.
COURTHOPE, Sir G. L.	BROWN, DAVIS	WHEELER, Col.
HAZLERIGG, Sir A. G.		

Veterinary Committee.

NORTHBROOK, Earl of	BEHRENS, Major CLIVE	MANSSELL, ALFRED
(<i>Chairman</i>)	BELL, JOHN	MATHEWS, ERNEST
MILDMAY OF FLETE, Lord	BROWN, DAVIS	OVERMAN, HENRY
PARKER, Hon. C. T.	BURKE, U. ROLAND	SILCOCK, T. B.
BURRELL, Sir MERRIK R.	CARR, RICHARDSON	SMITH, FRED
COTTERELL, Sir JOHN	CRUTOHLEY, PERCY	STANYFORTH, Lt.-Col.
GILBEY, Sir WALTER	DISBROWE-WISE, Lt.-Col.	STRAKER, F.
McFADYEAN, Prof. Sir J.	FENWICK, E. GUY	TANNER, F. O.
WEIGALL, Sir A. G.	GATES, B. J.	THORNTON, F. H.
ASHTON, T. W.	HARRIS, JOSEPH	

*Standing Committees.***Committee of Selection and General Purposes.**

PARKER, Hon C. T.	HARLFCH, Lord	BURKE, U ROLAND
(<i>Chairman</i>)	COURTHOPE, Sir G L	GREAVES, R M.
THE PRESIDENT	HAZLERIGG, Sir A G.	

And the Chairman of each of the Standing Committees

Research Committee.

DEVONSHIRE, Duke of	BURKITT, W.	MATHEWS, ERNEST
(<i>Chairman</i>)	CORNWALLIS, Col.	MILN, G P.
BLEDISLOE, Lord	EVENS, JOHN	OVERMAN, HENRY
BURRELL, Sir MERRIK R	GREAVES, R M	SOMERVILLE, Prof W
WIGGALL, Sir A G.	HOBBS, ROBERT	TOMKINSON, Major
ADFANE, C	LUDDINGTON, J L	WHETHAM, C D

Stock Prizes Committee.

CARR, RICHARDSON	CRUTCHLEY, PERCY	REA, G. G
(<i>Chairman</i>)	FENWICK, E GUY	SHERWOOD, S. R
NORTHBROOK, Earl of	GREAVES, R M	SILCOCK, T B
HARIECH, Lord	HOBBS, ROBERT	SMITH, FRED
BURRELL, Sir MERRIK R	HOWKINS, B	TANNER, E C
COTTERELL, Sir JOHN	MANSSELL, ALFRED	TINDALL, C. W.
GREENALL, Sir GILBERT	MATHEWS, ERNEST	WICKHAM BOYNTON,
ASHTON, T W	MYATT, JOHN	T L
BEHRENS, Major CLIVE	NEILSON, R B	The Stewards of
BROCKLERANA, Rev C H	OVERMAN, HENRY	Live stock
BROWN, DAVIS	PAGIT, L C	

Judges Selection Committee.—*Same as Stock Prizes Committee.*

Implement Committee.

STANFORTH, Lt.-Col	GARRITT, Col	RANSOME, E C
F W (<i>Chairman</i>)	GREAVES, R M	SAMPLE, C H.
COURTHOPE, Sir G L	HARRISON, W	SHERWOOD, S R
AVELING, I L	LUDDINGTON, J L	WHEELER, Col.
BELL, JOHN	MIDDLETON, C	The Steward of
CRUTCHLEY, PERCY	MYATT, JOHN	Implements
EVENS, JOHN	OVERMAN, HENRY	
FALCONER, J	PATERSON, R. G.	

Showyard Works Committee.

GREENALL, Sir GILBERT	BELL, JOHN	OVERMAN, HENRY
(<i>Chairman</i>)	BURKE, U. ROLAND	PAGLI, L C
BURRELL, Sir MERRIK R	CARR, RICHARDSON	REA, G. G.
HAZLERIGG, Sir A G	CRUTCHLEY, PERCY	SAMPLE, C H.
ASHTON, T W.	HARRISON, W.	STANFORTH, Lt.-Col.
AVELING, T. L	NEILSON, R B	TINDALL, C W.

Dairy and Produce Committee.

MATHEWS, ERNEST	CARR, RICHARDSON	SILCOCK, T B
(<i>Chairman</i>)	CRUTCHLEY, PERCY	SMITH, FRED
FITZWALTER, Lord	DISBROWE-WISE, Lt Col.	SOMERVILLE, Prof.
PARKER, Hon C. T.	EVENS, JOHN	WHEELER, Col.
BURRELL, Sir MERRIK R.	FENWICK, E GUY	WHETHAM, C. D.
WIGGALL, Sir A G	GREAVES, R. M	WILLIAMS, Prof R
ASHTON, T W	OLIVER-BELLASIS, Capt R	STENHOUSE
BURKITT, W	OVERMAN, HENRY	

Horticultural Committee.

GREFNALL, Sir G. (<i>Chairman</i>)	HAZLERIGG, Sir A G.
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General Reading Committee.

The Whole Council, with the following representatives of the Local Committee :—

THE MAYOR OF READING	COX, Ald. F. A.	SUTTON, E. P. F.
ABRAM, Ald. Sir G. S.	CUMBER, W. J.	WHITLEY, S. R.
BENYON, J. H.	PALMER, ERIC	JOHNSON, C. S.
		(Hon. Local Sec.,

Honorary Director.—SIR GILBERT GREENALL, Bart., C.V.O.

Secretary.—T. B. TURNER, 16 Bedford Square, W.C.1.

Editor of Journal.—C. S. ORWIN, M.A., *School of Rural Economy, Oxford.*

Consulting Chemist.—DR. J. AUGUSTUS VOELCKER, M.A., 1 Tudor St., E.C.4

Consulting Veterinary Surgeon.—Prof. Sir JOHN McFADYEAN, *Royal Veterinary College, Camden Town, N.W.1*

Botanist.—Prof. Sir R. H. BIFFEN, F.R.S., *School of Agriculture, Cambridge.*

Zoologist.—CECIL WARBURTON, M.A., *School of Agriculture, Cambridge.*

Consulting Engineer.—F. S. COURTNEY, 25 Victoria Street, Westminster, S.W.1

Surveyor.—CHARLES H. R. NAYLOR, *Smith's Bank Chambers, Derby.*

Publisher.—JOHN MURRAY, 50A Albemarle Street, W.1.

Solitors.—GARRARD, WOLFE, GAZE & CLARKE, 13 Suffolk Street, S.W.1.

Bankers.—WESTMINSTER BANK, 1 St James's Square, London, S.W.1.

vi *Distribution of Governors and Members of the Society.*

DISTRIBUTION OF GOVERNORS AND MEMBERS OF THE SOCIETY, AND OF ORDINARY MEMBERS OF THE COUNCIL

LOCAL DISTRICT	DIVISION	GOVERNORS ANNUAL MEETING	MEMBERS OF COUNCIL ORDINARY MEMBERS	ORDINARY MEMBERS OF COUNCIL
A	BERKSHIRE	128	1	B Howkins
	GLOUCESTERSHIRE	908	5	Major R Harbottle, J H Hall, C P Milne, R B Nelson, Major C W Tomkinson
	CORNWALL	108	1	Capt G H Johnston
	DORSETSHIRE	297	2	U Roland Bullock, Lt Col H E D Disbrowe Wise
	DORSSET	115	1	Arthur Hiscock
	HANTS AND CHANNEL ISLANDS	344	2	T W Ashton, J Falconer
	MIDDLESEX	218	1	Richardson Carr
	LANCASHIRE AND ISLE OF MAN	609	2	Windham L Hale, I B Silcock
	MIDDLESEX	100	1	A W Parkin
	MIDDLESEX	99	1	Col Edward Currie
	NORFOLK	472	3	Davis Brown, Hubert Groom, Henry Overman
	NORTHAMPTONSHIRE	200	1	I H Thornton
	NORTHAMPTONSHIRE	26	3	G G Roy, C H Sample, T Straker
	STAFFORDSHIRE	311	2	John Myatt, R G Pittison
	WILTSHIRE	223	1	Col L V V Wheeler
	WILTSHIRE	109	2	Major H C Behrens, J K Jewett
	SCOTLAND	321	2	Robert Dickie, James Piper
B.	BUCKINGHAMSHIRE	190	1	I J Gates
	DEVON	114	1	Lord Milman, J H H
	DEVON	00	2	W Burdett, C Middleton
	DEVON	37	2	Sir Walter Gilbey, Hon T G Strutt
	HARTFORDSHIRE	18	1	Sir John R G Cotton
	HARTFORDSHIRE	277	1	Sir A G Haden
	LONDON	560	3	T J Matthews, I Hamlyn Price, Lieut Col Sir A G Weigall
	NOTTINGHAMSHIRE	112	1	John B H
	NOTTINGHAMSHIRE	41	1	T Guy Lenwick
	SHROPSHIRE	47	2	Alfred Mansell, F Craig Tanner.
	SURREY	32	2	S R Stoddard, Fred Smith
	SURREY	211	1	Sir Bernard B Greenwell
	WILTSHIRE	218	1	D Combes
	WILTSHIRE, W R	362	2	Col Rt Hon G R Fane Fox, Lieut Col C Venables
	SOUTH WALES	178	1	Col C Venables
	WILTSHIRE	209	1	Sir W A Mount
	WILTSHIRE	298	2	Rev C H Brocklebank, J L Liddington
C.	WILTSHIRE	111	1	Joseph H H
	WILTSHIRE	112	1	Hubert Alexander
	WILTSHIRE	33	2	Lord Blandford, H D Brocklebank
	HUNTINGDONSHIRE	56	1	Sir Douglas Newton
	KENT	117	2	J T Aveling, Lord Fitzwalter
	LINCOLNSHIRE	431	2	John Jervis, C W Lindall
	OXFORDSHIRE	108	1	Robert Hobbs
	SOMERSET	198	1	Lord Strachan
	SUSSEX	411	2	Sir Merrick R Lush, Col Sir G L Courthope
	WARWICKSHIRE	275	1	Capt R Oliver, Baines
	WILTSHIRE	99	1	Jacob Wakefield
	WILTSHIRE, L R	163	1	I T Wickham Boynton
	WILTSHIRE	95	1	Brian H Burton
	NORTH WALES	417	2	David Davies, Major T J W Platt
	FOREIGN COUNTRIES	257		*Col Frank Garrett *J C Ransom
	MEMBERS WITH NO ADDRESSES	98	4	*Prof W Somerville *C Dampier Whitham
GRAND TOTALS		13,573	80	

* Nominated Members of Council

TABLE SHOWING THE NUMBER OF GOVERNORS AND MEMBERS
IN EACH YEAR FROM THE ESTABLISHMENT OF THE SOCIETY

Year ending with	President of the Year	Governors		Members		Harv	Total
		Life	Annual	Life	Annual		
1839	3rd Earl Spencer						1,100
1840	5th Duke of Richmond	86	189	146	2,444	5	2,800
1841	Mr John Rusby	91	219	231	4,047	7	4,595
1842	Mr Henry Russell	101	211	388	6,194	15	5,849
1843	4th Earl of Liverpool	91	209	401	6,155	15	6,902
1844	3rd Earl Spencer	95	214	442	6,161	15	6,927
1845	5th Duke of Richmond	91	196	507	5,899	15	6,733
1846	1st Viscount Portman	90	201	654	6,109	19	6,971
1847	6th Earl of Liverpool	91	195	607	6,478	20	6,981
1848	2nd Earl of Yarborough	93	188	648	6,487	21	6,935
1849	3rd Earl of Chester	89	178	682	6,443	20	6,912
1850	4th Marquis of Downshire	90	190	607	6,436	19	5,202
1851	5th Duke of Richmond	1	112	774	4,175	19	5,121
1852	2nd Earl of Duck	93	166	711	4,002	19	4,381
1853	2nd Lord Ashburton	90	147	739	3,908	19	4,92
1854	Mr Philip Lucy	18	146	771	4,152	20	5,177
1855	Mr William Miles M.L.	81	141	795	3,838	19	4,882
1856	1st Viscount Cranborne	81	130	810	3,807	20	4,979
1857	Viscount Ouseley	83	137	808	3,931	19	5,068
1858	6th Earl of Liverpool	83	131	904	4,010	18	5,145
1859	7th Duke of Devonshire	78	100	927	4,008	18	5,161
1860	5th Lord Walsingham	78	119	927	4,047	18	5,183
1861	3rd Earl of Liverpool	81	90	1,113	3,088	18	4,653
1862	H.R.H. The Prince Consort	83	97	1,151	3,470	17	4,223
1863	1st Viscount Palmerston	80	88	1,283	3,795	17	5,188
1864	2nd Lord Liverpool	78	45	1,343	4,015	17	5,496
1865	Mr J. H. Sturt M.L.	81	1	1,388	4,190	16	5,750
1866	1st Lord Palmerston	84	395	4,049	4,175	17	5,222
1867	Mr H. S. Thompson	7	81	1,388	3,903	15	4,405
1868	6th Duke of Devonshire	74	1,409	3,888	15	5,411	
1869	H.R.H. The Prince of Wales & G.	73	1,417	3,464	17	5,146	
1870	7th Duke of Devonshire	71	74	1,511	3,764	1	4,436
1871	6th Lord Vernon	72	74	1,400	3,806	17	5,442
1872	Mr W. W. W. Bart. M.L.	71	73	1,055	3,964	14	5,768
1873	2nd Earl of Devon	71	62	1,832	3,195	12	5,916
1874	Mr J. W. H. Bart.	76	58	1,944	3,706	12	5,646
1875	1st Viscount Palmerston	79	70	2,008	3,118	11	5,145
1876	2nd Lord Devon	63	78	2,114	4,013	11	6,349
1877	Lord Devon	81	70	2,201	4,071	17	6,480
1878	1st Viscount Palmerston	81	72	2,308	4,130	20	6,437
1879	H.R.H. The Prince of Wales & G.	81	7	2,403	4,000	26	7,330
1880	9th Duke of Devon	81	70	2,403	5,083	20	7,909
1881	Mr William Walsby	86	63	2,706	5,041	19	7,909
1882	Mr John Lubbock	8	71	2,849	5,102	19	8,080
1883	6th Duke of Devon	78	71	2,979	4,102	19	8,019
1884	Mr J. W. H. Bart.	72	72	3,003	4,408	21	8,776
1885	Mr J. W. H. Bart.	71	69	3,003	5,011	20	9,135
1886	H.R.H. The Prince of Wales & G.	70	61	3,414	4,101	20	9,134
1887	Lord Devon	71	61	3,440	4,101	20	9,082
1888	Mr W. W. H. Bart.	68	60	3,501	4,101	16	8,844
1889	H.R. MAJESTY QUEEN VICTORIA	73	58	3	7,153	15	10,866
1890	1st Lord Devon	1	8	3,446	4,141	17	10,984
1891	2nd Earl of Devon	117	60	411	6,101	19	10,908
1892	1st Duke of Devon	111	69	1,841	7,006	20	11,006
1893	1st Duke of Devon	107	74	3,786	7,138	21	11,126
1894	8th Duke of Devon	13	73	3,718	7,122	21	11,118
1895	Mr J. W. H. Bart.	120	80	3,747	7,179	21	11,149
1896	Mr Walter Gill	126	83	3,900	7,273	21	11,180
1897	H.R.H. The Duke of Devon	11	81	3,705	7,208	21	11,104
1898	6th Earl of Devon	121	79	3,747	7,182	25	11,044
1899	Earl of Devon	116	70	3,606	7,009	21	10,879
1900	H.R.H. The Prince of Wales & G.	111	71	3,608	6,810	24	10,686
1901	3rd Earl of Devon	107	70	3,564	6,336	27	10,973
1902	H.R.H. The Prince of Wales & G.	100	69	3,400	6,305	26	10,750
1903	H.R.H. The Prince of Wales & G.	92	62	3,439	5,771	27	9,938
1904	10th Earl of Devon	89	68	3,37	5,005	27	9,477
1905	9th Earl of Devon	89	78	3,112	5,58	31	9,170
1906	Mr J. W. H. Bart.	94	155	3,110	6,180	40	9,600
1907	4th Earl of Devon	91	174	3,076	6,101	29	9,609
1908	5th Duke of Devon	89	178	3,019	6,442	30	9,758
1909	7th Earl of Jersey & G.	91	177	2,831	6,696	31	9,946
1910	Mr Gilbert Greenall	80	166	2,878	6,944	31	10,095
1911	Mr J. W. H. Bart.	85	168	2,805	7,191	30	10,770
1912	9th Lord Middleton	89	170	2,741	7,289	30	10,309
1913	Earl of Devon	89	118	2,601	7,474	28	10,448
1914	4th Earl of Devon	89	173	2,626	7,609	28	10,545
1915	1st Duke of Devon	88	184	2,517	7,313	28	10,130
1916	7th Duke of Richmond and Gordon	81	185	2,427	7,306	27	10,246
1917	Mr Charles Adeane C.B.	93	210	2,412	8,214	26	10,905
1918	Hon Cecil T. Parker	102	224	2,395	8,221	25	10,972
1919	Mr J. E. P. Jones Bart.	119	236	2,411	8,558	24	11,842
1920	H.R.H. The Prince of Wales & G.	109	256	2,402	9,208	25	12,026
1921	Mr R. M. Graves	137	275	2,374	10,098	24	12,908
1922	H.R.H. The Duke of York & G.	144	287	2,317	10,596	22	13,266
1923	Lt Col E. W. Stanforth	153	293	2,262	10,778	20	13,506
1924	Mr Ernest Mathews, C.V.O.	159	289	2,201	10,676	21	13,346
1925	Mr Gilbert Greenall, Bart. C.V.O.	158	291	2,160	10,949	15	13,578

STATEMENT made to the Council by the Chairman of the Finance Committee, on presenting the Accounts for the year 1925.

Mr. ADEANE said that last year they brought forward a balance of £3,874 and received an income of £19,840, making the total receipts £23,714. The payments, including the investment of £5,155 and of £3,500 which was not required to meet any loss on the show, amounted to £20,070, leaving a balance of £3,644. The balance was greater than expected, as the £2,000 voted for the Research Committee was not drawn. Subscriptions, which amounted to £12,085, constituted a record. The only point to remark in the balance-sheet was that the capital of the society showed an increase of £5,458 during the year, in spite of a depreciation in investments amounting to £3,627 (mainly owing to the fall in Conversion Loan of 2½ points), as compared with their market value on December 31, 1924. The reserve fund now stood at £121,406.

ESTIMATES.—Unfortunately the number of new members was not coming up to the average, and they had thought it wise to estimate accordingly, reducing the figure from £12,085—the actual amount received last year—to £11,600 for 1926. On the other hand, interest on investments would show an increase of £832 over the previous year. They estimated that the receipts for 1926 would amount to £18,785. With regard to expenditure, under the head of Salaries of Staff there was an increase of £739—an increase necessitated by the office reorganisation. The other items of expenditure remained about the same, with the exception of Scientific Research, for which they were estimating a charge of £2,000. The total expenditure was estimated at £16,683, giving an estimated credit balance of £2,102.

In conclusion, Mr. ADEANE said he would like to refer for a moment to the slackening off in the admission of new members. He was glad to be able to say that Lord Desborough, their President, had consented to send out a letter to likely subscribers in the counties round Reading, and he was sure it would have a beneficial result.

The detailed estimate of receipts and expenditure for the current year was as follows —

FORECAST OF ORDINARY REVENUE AND EXPENDITURE FOR 1926

(Other than in respect of the Show)

Prepared by direction of the Finance Committee on the basis of the recommendation of September 21, 1905, made by the Special Committee

Actual figures for 1925		Estimate for 1926
£	<i>Receipts</i>	£
12 085	Subscriptions of Governors and Members	11 600
417	Interest on Daily Balances	400
4 702	Interest on Investments	5,554
277	Sales of Journals Text Book Pamphlets, etc	280
192	Advertisements in Journal	200
88	Income Tax Repaid	511
985	<i>Miscellaneous</i>	—
183	N D D Entry Fees etc	180
72	Hire of Council and Committee Rooms	80
32	<i>Sigar-B et Laster Trials—Entry Fees</i>	—
18 413		19 755
£	<i>Expenditure</i>	£
3 169	Salaries of Secretary and Official Staff	3 308
270	Pensions to Officials	302
881	Rent Lighting Cleaning Wages, etc (say)	900
650	Printing and Stationery	600
401	Postages and Telegrams	00
215	Miscellaneous	215
2 063	Journal	2 000
420	Chemical Department	425
250	Botanical Department	205
200	Zoological Department	200
400	Veterinary Department	400
100	Grant to Research Institute University College Reading	100
100	Consulting Engineer	100
276	Examinations for National Diploma (R A S L Short)	275
3,500	Amount set aside towards loss on Shows	3 500
12 804		13 675
£	<i>Exceptional Expenditure</i>	£
110	Scientific Research	2 000
51	Repairs to Society's Furniture	100
528	Library Binding and Purchase of Books	1 0
	Legal Charges and Auditors Fees (say)	0 0
	Alterations to Office	50
101	Trials of Sugar Beet Litters	—
58	Certificates and Medals for Long Service and Skilled Labour	58
13 650		16 683
Surplus		
£		£
4 763	Estimated Receipts	19 785
—	Estimated Expenditure	16 683
	Estimated Receipts over Expenditure	£3,102

STATEMENT OF RECEIPTS AND EXPENDI- JULY 7 TO

		Receipts.			
		£	s.	d.	£ s d.
2,000	Subscription from the City of Chester				2,000 0 0
2,028	Prizes given by Agricultural and Breed Societies and others	2,028	1	0	
1,601	Prizes given by Chester Local Committee (excluding £300 given for Dog Section)	1,604	0	0	
3 629					4,310 1 0
—	Contributions to Show Fund				13 11 0
FEES FOR ENTRY OF IMPLEMENTS —					
10,165	Implement Exhibitors' payments for Sheddling	9,826	2	0	
263	Non-Members Fees for entry of Implements	176	0	0	
111	Fees for entry of "New Implements"	90	0	0	
10 539					10,092 2 0
FEES FOR ENTRY OF LIVE STOCK					
20	3 Members' Entries @ 5s	15	0	0	
4,983	2,035 Members' Entries @ 3s	6,114	0	0	
6	2 Members' Entries @ 2s	4	0	0	
2,250	1,542 Members' Entries @ 30s	2	73	0	
416	11 Members' Entries @ 1s	34	0	0	
40	55 Members' Entries @ 15s	41	5	0	
28	63 Members' Entries @ 10s	32	10	0	
25	97 Members' Entries @ 5s	21	15	0	
13	Entrance fees	95	4	0	
600	103 Non-Members' Entries @ 6s	630	0	0	
225	59 Non-Members' Entries @ 3s	177	0	0	
16	5 Non-Members' Entries @ 2s	10	0	0	
—	1 Non-Member's Entry @ 30s	1	10	0	
11	27 Non-Members' Entries @ 1s	27	0	0	
3	4 Non-Members' Entries @ 10s	2	0	0	
8 636					9,938 4 0
FEES FOR ENTRY OF POULTRY.—					
155	Members —472 Entries @ 5s	119	0	0	
269	Non-Members —494 Entries @ 10s	247	0	0	
6	Entrance fee	1	0	0	
439					366 0 0
OTHER ENTRY FEES —					
108	Produce	228	0	0	
172	Horse-Jumping Competitions	121	0	0	
1	Plantations Competition	49	13	6	
38	Orchard and Fruit Plantations Competition	16	0	0	
339					414 13 6
CATALOGUE —					
19	Extra lines for particulars of Implement exhibits	14	7	0	
7	Woodcuts of "New Implements"	4	10	0	
1,063	Advertising in Catalogue	1,071	8	3	
34	Sales of Implement Section of Catalogue	33	7	11	
1,112	Sales of Combined Catalogue	1,496	17	4	
49	Sales of Jumping Programme	64	2	6	
2,309		2,692	13	0	
86	Less Selling Expenses in Showyard	65	19	4	
2,223					2,626 13 8
£27,796	Carried forward				£29,761 5 2

TURE OF THE SHOW AT CHESTER, JULY 11, 1925.

Corresponding figures for 1924

Expenditure.

£	s	d	£	s	d
COST OF ERECTION OF SHOWYARD —					
2,972			Transferring Society's permanent buildings from Tel order to Chester (including taking down and re-erecting)	3,124	5 7
1,415			Fencing round Showyard	1,740	1 8
777			Implement Shedd	2,741	4 2
8 100			Stock Shedd	8,247	15 0
400			Poultry and Produce Sheds	61	16 4
11			Experimental Wool Shed	—	—
567			Dairy	650	1 4
111			Folder Shed and Office	13	16 5
241			Education and Forestry	208	6 11
1006			Grand Stands and Large Ring	1,113	3 9
968			Various Offices and Stands	1,059	1 6
52			Painting Signs and Fixing Ditto, Fencing and Judging Rings	127	0 3
51			Insurance	42	18 10
65			Ironmongery	49	19 7
4 115			Hire of Canvas	3,890	10 8
21			General Labour and Horse Hire (including Society's Clerk of Works)	2,558	11 8
47			Bee Shed	47	16 8
41			Extra Entrance to Show	42	5 0
—			Clean Milk Demonstration	31	14 0
106			Horse Shoeing Shed	93	7 6
67				26,964	4 1
40			Less 80 Flagpoles @ 10s	40	0 0
				26,924	4 1
SURVEYOR —					
			Salary £500 Travelling Expenses to London etc £20 6s 6d		
			Clal £10 10s, Petty Expenses £10 19		547 15 6
PRINTING —					
8			Printing of Prize Sheets Entry Forms Admission Orders (Circulars to Exhibitors Prize Circulars and Notices)	734	6 11
10			Programmes for Members	2	16 9
1			Plans of Showyard	1	0 0
1 24			Illustrations of Exhibitors	1,243	4 3
5			Bill of Materials	34	12 5
38			Circulars and Notices	52	18 6
71			Prize Awards	64	16 3
4			Programmes of Jumping Competitions	2	17 6
2 59				2,517	12 7
ADVERTISING —					
10			Advertising Closing of Entries in New papers	200	11 5
115			Advertising Show in Newspapers	613	0 9
524			Billposting	640	18 6
133			Printing of Posters and Labels	201	7 0
21			Press Pamphlet	12	10 0
1 256				1,855	7 8
POSTAGE, CARRIAGE, &c —					
157			General Postage	180	19 0
69			Postage of Bids to Members	70	12 5
12			Carriage of Luggage	14	19 4
238				275	5 4
AMOUNT OF PRIZES AWARDED,					
1 309			(including £110 1s given by various Societies and Chester Local Committee)		13,804 11 0
COST OF FORAGE FOR LIVE STOCK —					
1 802			Hay, 580l 8s, Straw, 1367l 15s 9d, Green Food, 468l 5s 7d		2,416 9
JUDGES' AND ASSISTANT JUDGES' FEES AND EXPENSES —					
643			Judges and Assistant Judges of Miscellaneous Implements, 9l 16s Horses, 74l 17s 2d Cattle, 220l 19s 9d Sheep, 207l 3s 10d, Pigs 115l 12s 8d Poultry, 35l 5s 2d Produce, 44l 19s 7d, Goats, 15l 17s 4d, Luncheon, 84l 10s		810 1 6
65			Badges for Judges and other officials		83 3 6
110			Receipts		107 19 2
£46 232			Carried forward		£49,842 9 8

STATEMENT OF RECEIPTS AND EXPENDITURE

Corresponding figures for 1941

£

27,796

Brought forward

29,761 5 2

MISCELLANEOUS RECEIPTS —

780	Admission to Horticultural Show	1,190	6	8
632	Garage	1,580	8	6
204	Rent for Railway Offices	222	0	0
75	Premium for Coal Rooms	75	0	0
130	Rent for Ministry of Agriculture Pavilion	213	5	0
210	Advertisements in Stock Prize Sheet	312	12	4
—	Sale of Manure	25	0	0
21	Bad Debts	—	—	—
23	Miscellaneous	24	11	5
10	Bath Chairs	20	19	6
2 085		—	—	3,714 3 5

ADMISSIONS TO SHOWYARD —

1 128	Tuesday July 7 (10s)	1 64	19	6
3 945	Wednesday July 8, @ 5s and 3s	4 002	11	—
4 5 4	Thursday July 9 (10s)	6 270	14	4
1 197	Friday July 10 (10s)	056	11	—
1 557	Saturday July 11, @ 2s	1 441	3	1
221	Season Tickets	577	10	0
710	Day Tickets	1 540	7	4
14 382		—	—	19,453 17

ENTRANCES TO HORSE RING —

408	Wednesday July 8	476	7	0
441	Thursday July 9	484	7	6
702	Friday July 10	292	2	0
102	Saturday July 11	214	4	0
612	Tickets sold for Reserved Positions	791	3	0
1 764		—	—	2,248 3 6

SALES —

177	Sales of Produce at Dairy	193	6	5
611	Auction Sales in Showyard (Tees less Commission)	392	6	6
1,972	Dog Show 1st & 2nd 1941 4s Admissions to Show, 711 9s 11 Sales of Catalogues 8d 9s 9d, Advertis- ements in Schedule 30l 12s, Guarantees to Hires 97l 4s 9d Stand Rent, 2l 5s, Deposits forfeited, 5l, Contribution to Purvison Chester Local Committee, 100l Special Contribution 80l Miscellaneous Receipts, 11 10s 9d Debt Balance	2,651	2	0
5,976		6	—	—

£54,763

£58,414 4 6

Examined, audited, and found correct, this 18th day of November, 1925.

T. B. TURNER Secretary.
 DELOITTE PENDER,
 GRIFFITHS & Co } Accountants

JONAS M. WEBB,
 HUBERT J. GREENWOOD, } Auditors on behalf
 NEWELL P. SQUARRY, } of the Society.

OF THE SHOW AT CHESTER (continued).

Corresponding figures for 1924		Expenditure (contd.).		£	s.	d.	£	s.	d.
£46,232		Brought forward					49,342	9	8
GENERAL ADMINISTRATION:—									
161		Stewards — Personal and Railway Expenses		177	5	7			
241		Assistant Stewards — Personal and Railway Expenses		306	15	7			
523		Official Staff — Extra Clerks, 282 <i>l.</i> 10 <i>s.</i> 7 <i>d.</i> , Lodgings, 75 <i>l.</i> 10 <i>s.</i> , Maintenance of Clerks, 66 <i>l.</i> 10 <i>s.</i> , Travelling Expenses, 28 <i>l.</i> 11 <i>s.</i> 5 <i>d.</i> ; Secretary's Hotel and Travelling Expenses, 146 <i>l.</i> 10 <i>s.</i> 5 <i>d.</i>		599	12	2			
249		Finance Office. — Finance Clerk, 10 <i>l.</i> 17 <i>s.</i> ; Grand Stand Men, 91 <i>l.</i> 16 <i>s.</i> 4 <i>d.</i> ; Turnstile Men, 52 <i>l.</i> ; Bank Clerks, 65 <i>l.</i> 15 <i>s.</i> ; Hire of Car, 18 <i>l.</i> , Refreshments, 11 <i>l.</i> 15 <i>s.</i> 11 <i>d.</i>		250	4	3			
45		Awards Office — Clerks, 45 <i>l.</i> 10 <i>s.</i> 5 <i>d.</i> , Boys, 23 <i>l.</i> 15 <i>s.</i>		69	5	5			
1,219							1,403	3	0
General Management:—									
184		Foremen and Assistant Foremen		197	9	8			
78		Yardmen		82	5	9			
172		Door and Gate Keepers		168	7	10			
152		Garage — Superintendent and Assistants' Expenses, and Offices		157	0	10			
114		Veterinary Department — Veterinary Inspectors		120	13	3			
126		Engineering Department — Consulting Engineer and Assistant, 60 <i>l.</i> 18 <i>s.</i> , House, Maintenance and Travelling Expenses, 36 <i>l.</i> 3 <i>s.</i> 1 <i>d.</i>		97	1	1			
1,012		Police — Metropolitan Police, 1,125 <i>l.</i> 19 <i>s.</i> 4 <i>d.</i> , Commissioners, 25 <i>l.</i> ; Refreshments, 8 <i>l.</i> 6 <i>s.</i> 6 <i>d.</i>		1,159	5	10			
1,838							1,977	4	3
2		Dairy — Staff, 240 <i>l.</i> 9 <i>s.</i> , Milk, 219 <i>l.</i> 9 <i>s.</i> ; Ice, 27 <i>l.</i> 5 <i>s.</i> ; Utensils, 173 <i>l.</i> 4 <i>s.</i> 5 <i>d.</i> , Salt, 1 <i>l.</i> 12 <i>s.</i> ; Engine, 12 <i>l.</i> 8 <i>s.</i> 8 <i>d.</i> ; 16 <i>l.</i> 2 <i>s.</i> ; Labour, 34 <i>l.</i> 12 <i>s.</i> 11 <i>d.</i> ; Milk Analysis, 16 <i>l.</i> 16 <i>s.</i> ; Butter and Cheese Boxes, 10 <i>l.</i> 19 <i>s.</i> 8 <i>d.</i> , Refreshments, 27 <i>l.</i> 2 <i>s.</i> 4 <i>d.</i> ; Fuel, 5 <i>l.</i> 0 <i>s.</i> 1 <i>d.</i> ; Miscellaneous, 24 <i>l.</i> 12 <i>s.</i> 9 <i>d.</i>	847						
9		Analysis of Cider		7	0	0			
112		Poultry — Penning and Feeding, 54 <i>l.</i> 10 <i>s.</i> , Carriage, 17 <i>l.</i> 13 <i>s.</i> 6 <i>d.</i> ; Miscellaneous, 4 <i>l.</i> 6 <i>s.</i> 2 <i>d.</i>		76	9	8			
993							930	15	2
713		Horticultural Show — Hire of Tents, 435 <i>l.</i> 2 <i>s.</i> 6 <i>d.</i> ; Judges, 18 <i>l.</i> 13 <i>s.</i> 4 <i>d.</i> , Wages, 62 <i>l.</i> 10 <i>s.</i> ; Medals, 46 <i>l.</i> 6 <i>s.</i> 8 <i>d.</i> ; Labour, 41 <i>l.</i> 0 <i>s.</i> 10 <i>d.</i> ; Carriage and Cartage, 14 <i>l.</i> 7 <i>s.</i> 7 <i>d.</i> ; Miscellaneous, 30 <i>l.</i> 19 <i>s.</i> 4 <i>d.</i>					649	0	3
68		(For Admissions see Miscellaneous Receipts)							
52		Plantations Competition					118	2	1
		Orchards and Fruit Plantations Competition					54	10	2
		Dog Show. — Prizes, 1,391 <i>l.</i> 6 <i>s.</i> , Erection of Show and Canvas, 418 <i>l.</i> 6 <i>s.</i> 10 <i>d.</i> , Miscellaneous Printing, 65 <i>l.</i> 13 <i>s.</i> 6 <i>d.</i> , Catalogue Printing, 118 <i>l.</i> 13 <i>s.</i> 5 <i>d.</i> ; Wages, 85 <i>l.</i> 10 <i>s.</i> ; Judges, 32 <i>l.</i> 7 <i>s.</i> 7 <i>d.</i> ; Judges' Luncheons, 32 <i>l.</i> 10 <i>s.</i> ; Hire of Tent, 48 <i>l.</i> ; Show Licence, 22 <i>l.</i> 10 <i>s.</i> , Advertising, 13 <i>l.</i> 14 <i>s.</i> 6 <i>d.</i> , Postage, 22 <i>l.</i> 1 <i>s.</i> 6 <i>d.</i> , Lodgings, 5 <i>l.</i> 12 <i>s.</i> 6 <i>d.</i> ; Miscellaneous, 15 <i>l.</i> 11 <i>s.</i> 4 <i>d.</i>				2,271	17	2	
GENERAL SHOWYARD EXPENSES —									
260		Band		318	7	5			
300		Hire of Furniture		378	10	0			
50		Telephone Extension		13	17	0			
8		Telegraph Facilities		11	16	10			
85		Official Luncheons		60	0	0			
50		St. John Ambulance		65	0	0			
10		Billposting in Showyard		22	10	0			
13		Medals		10	2	0			
70		Engraving Cups		34	6	6			
58		Plans and Maps		44	11	10			
—		Ashes		7	3	0			
42		Education and Forestry		80	7	6			
20		Tan		12	14	6			
3		Sleepers		50	9	3			
8		Hire of Tents		13	10	0			
20		Carriage — Sundry Items		3	0	5			
8		Hire of Weighbridge		15	10	0			
18		Bath Chairs		22	10	0			
66		Miscellaneous		148	0	4			
—		Gas		9	1	7			
1,089							1,219	8	2
150		Hire of Land for Garage							
33		Outstanding accounts from Leicester Show					3	0	0
—		Credit Balance					58,069	9	11
—							344	14	7
£54,763							£58,414	4	6
Credit balance (as above)							344	14	7
Add Contribution from Ordinary Account to Show Fund							3,500	0	0
							£3,844	14	7

STATEMENT OF RECEIPTS AND

Figures for
1924.
£

Receipts.

	£	s.	d.	£	s.	d.	£	s.	d.
CASH AT BANKERS AND IN HAND AT JANUARY 1, 1925 :—									
133 Reserve Fund						673	17	2	
3,080 Current Account						3,083	1	1	
156 Cash in Hand						116	14	11	
3,369									8,878 13 2
ANNUAL SUBSCRIPTIONS :—									
1,454 <i>Governors</i> for 1925						1,515	5	0	
10,214 <i>Members'</i> Subscriptions for 1925						10,409	16	7	
97 Subscriptions for previous years						129	8	0	
LIFE GOVERNORS AND MEMBERS :—									
44 Annual Contributions						30	11	0	
11,809									12,085 0 7
MISCELLANEOUS :—									
5,058 Interest on Investments						4,702	0	11	
279 Interest on Daily Balances						416	13	0	
503 Income Tax repaid						83	2	6	
75 Sales of Pamphlets, Farm Account Books, etc						48	13	0	
3 Sales of Library Catalogues						1	15	0	
109 Sales of Text Books						126	16	3	
94 Sales of Journals						79	10	6	
214 Advertisements in Journal						101	11	1	
217 N D D Entry Fees and Sales of Papers						163	6	11	
— Sundries						345	9	1	
28 Hire of Council and Committee rooms						72	9	0	
— Sugar Beet Litter Fines Entry Fees						21	10	0	
6,580									6,828 6 3
18,389									18,413 6 10
Life Compositions of Governors and Member									
930 Donations to Society's Funds						958	0	0	
50 Subscriptions for 1926						102	10	0	
63 Cash received for debts due at Dec 31, 1924						163	18	0	
494						202	18	10	
1,517									1,427 6 10
Rent, 12 Hanover Square									
						255	15	0	
						255	15	0	
Less Rent paid									
£23,295									23,714 6 10

T. B. TURNER, *Secretary.*DELOITTE, PLENDER, GRIFFITHS & CO., *Accountants.*

PAYMENTS FOR THE YEAR 1925.

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Figures for 1924	Payments.	£	s.	d.	£	s.	d.	£	s.	d.
3,246	GENERAL ADMINISTRATION :—									
312	Salaries of Secretary and Official Staff (including clerical assistance)	3,169	9	0						
1,182	Pensions to Officials	269	13	1						
1,010	Legal Charges and Auditors' Fees	525	11	9						
9	Rent, Rates, Taxes, Insurance and House Expenses	881	3	2						
720	Purchase of Books									
252	Printing and Stationery	659	1	9						
32	Postage and Telegrams	100	10	6						
111	Carriage of Parcels and Travelling Expenses	1	4	3						
6904	Advertising and Miscellaneous Office Expenses	159	13	3						
	JOURNAL OF THE SOCIETY —							6,010	17	9
1,140	Balance cost of Volume 85 —									
324	Printing and Binding	1,145	4	10						
298	Postage	112	14	2						
2	Editing and Literary Contributions	3	0	12						
	Illustrations	61	0	10						
1764								2,065	0	10
9	On account of printing Volume 86									
24	Advertising and Binding Farm Account Books							9	12	6
	LABORATORY —									
418	Salary and Petty Cash							420	3	
	OTHER SCIENTIFIC DEPARTMENTS —									
250	Botanist's Salary	200	0	0						
200	Zoologist's Salary	200	0	0						
100	Consulting Engineer	100	0	0						
400	Grant to Royal Veterinary College	400	0	0						
100	Grant to Research Institute, Reading	100	0	0						
3	Medals for Proficiency in Cattle Pathology									
1,053	NATIONAL DIPLOMA IN AGRICULTURE. —							1,050	0	0
31	Honoraria and Expenses of Examiners	31	15	0						
81	Travelling Expenses of Officials	1	8	9						
80	Hotel Expenses of Examiners and Officials	8	3	2						
47	Printing, Stationery and Postage	66	13	4						
22	Writing Diplomas	16	1	9						
9	Hire of Premises	6	16	6						
75	Salary for Assistant	75	0	0						
646		690	18	6						
516	Less Entry Fees and Sales of Examination Papers	5	0	6						
132		115	14	1						
66	Less Highland and Agricultural Society's Money	27	18	5				58	0	0
66										
	NATIONAL DIPLOMA IN DAIRYING —									
46	Hire of Premises, &c	55	7	4						
84	Fees and Travelling Expenses of Examiners	91	2	10						
38	Hotel and Travelling Expenses	41	4	4						
11	Printing and Postage	22	1	4						
179	(For Entry Fees and Sales of Exam Papers, see contra)							217	18	10
	EXTRA EXPENDITURE —									
2,000	Grant to Research Fund									
29	Library Binding and Purchase of Books	51	1	4						
191	Painting and Cleaning Council Chamber									
56	Leaflets to Members									
—	Repairs to Furniture	109	10	0						
—	Certificates and Medals for Long Service	57	17	0						
—	Sugar Beet Lifter Trials, Expenses and Prizes	101	8	9						
2,276								320	0	1
3,500	Amount set aside towards Loss on Shows							3,500	0	0
10,193	Total of Ordinary Payments									
2,500	Purchase of £6,704 8s. 6d. 3½ per cent. Conversion Loan at 75½							6,155	5	5
349	Payments to Wiltshire District Council							567	12	0
399	Net amount transferred from Reserve Fund to Show account to meet loss on Leicester Show									
—	Purchase of steel cupboard							11	2	6
—	Additions to Show Print							45	2	5
—	Amount due from Show Account							3	17	7
—	Amount due and transferred to Gilbey Bequest Account							1	4	3
—	Owing to Sundry Creditor at December 31, 1924							0	10	0
3,228										6,420 14 0
	BALANCES AT THE BANK AND IN HAND :—									
674	Reserve Fund							146	11	6
3,083	Current Account							3,305	9	3
117	Cash in Hand							191	18	10
3,874										3,643 19 7
223,295										223,714 6 10

Examined, audited, and found correct, this 23rd day of February, 1926.

JONAS M. WEBB,
HUBERT J. GREENWOOD, { Auditors on
behalf of
the Society.

ROYAL AGRICULTURAL

Dr.

BALANCE SHEET,

Figures for 1924		s.	d.	£	s.	d.	£	s.
£	To SUNDRY CREDITORS—							
268	Sundry Creditors			73	0	0		
63	Subscriptions received in 1925 but belonging to 1926 .			163	18	0		
98	Show receipts received in 1924 but belonging to 1925 .			—			236	18 0
429								
	To CAPITAL —							
125,173	As at December 31, 1924			128,342	1	5		
	SHOW FUND—							
(loss) 5,976	Surplus on Chester Show			344	14	7		
3,500	Contribution from Ordinary Account			3,500	0	0		
750	Less Income Tax on Show surplus			—				
121 947				132,186	16	0		
1,241	Amount transferred from Timber Account							
930	Life Compositions received in 1925			958	0	0		
50	Donations towards the Society's Funds			102	10	0		
68	Subscriptions for 1925 received in 1924			62	16	0		
2,196	Excess of ordinary receipts over payments for the year 1925			4,763	13	7		
126 432				138,073	15	7		
(Add) 2,528	Depreciation on Investments			3,627	8	3		
128 960				134,446	12	4		
	DEPRECIATION written off, viz —							
12	Fixtures			11	4	3		
44	Furniture			39	14	4		
7	Machinery			6	8	2		
455	Show Plant			480	12	2		
100	Lease of 16 Bedford Square			100	0	0		
618				646	13	11		
128,342							133,799	18

£128,771

£134,036 16 5

T. B. TURNER, *Secretary.*DELOITTE, PLENDER, GRIFFITHS & CO., *Accountants.*

SOCIETY OF ENGLAND.

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DECEMBER 31, 1925.

Cr.

Figures for 1924.		£	s.	d.	£	s.	d.
	By RESERVE FUND—						
104,651	146,465l. 13s. 7d. Conversion Loan $3\frac{1}{2}$ per cent. (1961) @ $75\frac{1}{2}$ * 110,215	8	6				
500	500l. War Savings' Certificates	500	0	0			
2,576	3,009l. 16s. Local Loans 3 per cent. (1912) @ $63\frac{1}{2}$ *	2,477	16	8			
2,301	2,840l. 13s. 6d. Metropolitan 3 per cent. Consolidated Stock (1941) @ 80*	2,272	10	0			
6,006	6,528l. 1s. 6d. Canadian 4 per cent. Stock (1940-1960) @ 91*	5,940	11	0			
	* Market value at 31 Dec. 1925				121,406	6	11
116,034							
	By LEASE OF 16 BEDFORD SQUARE	1,200	0	0			
1,200	Less Amount written off	100	0	0			
					1,100	0	0
	By FIXTURES—						
	Value at December 31, 1924	149	10	9			
	Less Depreciation at $7\frac{1}{2}$ per cent.	11	4	3			
		138	6	6			
149	Added during year	11	2	6			
					149	9	0
	By FURNITURE—						
	Value at December 31, 1924	307	3	1			
397	Less Depreciation at 10 per cent.	39	14	4			
					257	8	9
1,571	By PICTURES (500L) and BOOKS (1,071l 4s. 10d)				1,571	4	10
	By MACHINERY—						
	Value at December 31, 1924	61	14	5			
62	Less Depreciation at 10 per cent.	6	3	2			
					55	11	3
	By SHOW PLANT—						
	Value at December 31, 1924	4,896	1	6			
	Less Depreciation at 10 per cent.	489	12	2			
		4,406	9	4			
4,896	Added during 1925	489	2	3			
					4,895	11	7
—	By Expenditure (less receipts) on Reading Show				58	18	11
489	By SUNDRY DEBTORS				830	13	1
—	By MEDALS				22	14	10
	By CASH AT BANKERS AND IN HAND—						
	ORDINARY ACCOUNT—						
674	Reserve Fund	146	11	6			
3,083	Current Account	3,305	9	3			
117	Cash in Hand	191	18	10			
3,874		3,843	19	7			
99	SHOW ACCOUNT—(Overdrawn)	55	1	4			
					3,588	18	3
3,973							
£128,771					£124,036	16	5

Examined, audited, and found correct, this 23rd day of February, 1926.

JONAS M. WEBB,
HUBERT J. GREENWOOD, { Auditors on
behalf of
the Society.

Royal Agricultural Society of England.

RESEARCH COMMITTEE.

RECEIPTS AND PAYMENTS FOR YEAR 1925.

RECEIPTS.				PAYMENTS.			
	£	s	d		£	s	d
To Cash at Bank, Jan 1st, 1925	.	.	6	By Grant to National Council of Pig Breeders and Feeders	25	0	0
" Balance of Grant to National Institute of Agricultural Botany for Spring Oats Trials	.	1,745	7	" out of pocket expenses paid to University of Leeds for Sawley Grassland Improvement experiments	26	10	2
" Balance of Grant to East Suffolk County Council for Silage Experiments	.	296	14	" Grants to Rothamsted Experimental Station for Green Manuring and inoculation of Lucerne Seed Experiments	550	0	0
	.	42	16	" Grant to East Suffolk County Council for Silage Experiments	50	0	0
				" Grant to Norfolk Agricultural Station for Barley Experiments	500	0	0
				" Grant to National Institute for Research in Dairying for Whey Drying Experiments	200	0	0
				" Grant to National Institute of Agricultural Botany for Sugar Beet Seed Investigation	300	0	0
				" Grant to Norfolk Agricultural Station for Bullock Feeding Experiments	80	0	0
				" Grant to Professor Merville for experiment on seeding down land to Grass	24	0	0
				" Grant to Institute of Agricultural Engineering for Crop Drying Demonstration at Chester Show	50	0	0
				Books purchased in lieu of Gold Medal for Agricultural Research medallist	16	8	6
				" Honorarium for article "Electric Power in Agriculture"	25	0	0
				" Editing of "Occasional Notes"	50	0	0
				" Travelling expenses	28	5	7
				" Miscellaneous expenses	31	19	3
					1,957	3	6
				" Balance at Bank, Dec 31st, 1925	127	15	0
					<u>£2,084</u>	<u>18</u>	<u>6</u>

Examined, audited, and found correct, this 23rd day of February, 1926.

T. B. TURNER, *Secretary*.
DELOITTE, PLENDER, GRIFFITHS, & CO., *Accountants*.

JONAS M. WEBB,
HUBERT J. GREENWOOD, { *Auditors on behalf of the Society.*

[Copies of the full Report of any of the Council Meetings held during the year 1925 may be obtained on application to the Secretary, at 16 Bedford Square, London, W.C.1.]

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

Minutes of the Council.

WEDNESDAY, FEBRUARY 4, 1925.

Sir GILBERT GREENALL, Bart, C.V.O. (President), in the Chair

The PRESIDENT, in opening the proceedings, said it gave him very great pleasure to be able to announce that H M The King would visit the Show at Chester on Wednesday, July 8th. His Majesty would stay at Knowsley, with Lord Derby, and would motor from there to Chester. The presence of His Majesty at the Chester Show would give great pleasure to the inhabitants of the city and county, and would, he thought, be one more link in the chain which would ensure the success of the Chester meeting.

The PRESIDENT then referred to a very happy event which had just been celebrated by one of the Trustees of the Society. The Earl of Coventry commemorated his diamond wedding on January 25th, and as this was the first meeting of the Council since that anniversary Sir Gilbert said he was sure it would be their wish that he, as President, in their name, should write a letter of congratulation to Lord and Lady Coventry. The event was all the more interesting because Lord Coventry was born on May 9th, 1838, the very same day upon which was formed the English Agricultural Society, by which name their Society was first known. His lordship's connection with the Society had been a lengthy one, and he had filled almost all the offices possible. As they all knew, Lord Coventry's interest was in Hereford cattle, and he invariably filled in all his entry forms in his own hand. In those days, when large estates were being broken up and all the best in country life was passing, it was very refreshing to learn that upon the celebration of this happy event Lord and Lady Coventry had been surrounded by all their nine children and by their tenants and retainers on the Croome estate. His lordship had been referred to as "the grand old man of British sport," and very worthily deserved that title, for no one had done more for fox hunting, thoroughbred breeding, racing and steeplechasing than Lord Coventry.

The PRESIDENT, on behalf of the Council, also congratulated the Society's Consulting Botanist, Sir Rowland Biffen, on the honour of knighthood recently conferred upon him by H M The King.

Five new governors and 151 new members were elected.

The PRESIDENT here interposed to say how much they welcomed Mr. Barton, the new representative on the Council for Ireland.

Mr LUDINGTON, in moving the adoption of the Chemical Committee's report, called attention to the last paragraph of it. The Committee had found to their surprise, he said, that no one had been appointed to represent the Royal Agricultural Society on the Advisory Committee with regard to the Fertilisers and Feeding Stuffs Act. It would be remembered by the members of the Council that the Society had for the last two years taken a very active part in the matter. It had held meetings in connection with it, and it had also sent a deputation to the Minister of Agriculture. Although there were sixteen members of the Advisory Committee, there was only one member of it who really represented agriculture. That was Mr Robbins, the representative of the Farmers.

Union. It was most necessary that agriculturists should be fully represented upon the Committee. He thought, therefore, that, not only for the sake of the Society itself, but for the sake of agriculture generally, they should press for the power of appointing someone.

The PRESIDENT first put the report, excluding the resolution. This was adopted.

Mr. LUDDINGTON then formally moved :—

" That the Council view with surprise the omission of any representative of the Royal Agricultural Society of England to act on the permanent Advisory Committee appointed to advise in the framing of a new Fertilisers and Feeding Stuffs Act. As the Society primarily concerned in the movement for bringing about an amendment of the existing Act, they feel strongly that the Royal Agricultural Society of England should be represented on such a Committee."

Mr. CHRISTOPHER MIDDLETON seconded the motion. He said he thought that the Society had been badly treated in the matter. The Council had been very active from the first in asking for revision of the Fertilisers and Feeding Stuffs Act. It had always been one plank in their platform that there should be an Advisory Committee appointed to advise on the numerous technical details which were involved in the proper administration of the Act. It came almost as a shock to him when he saw the list of the members of the Committee and found that there was no representative of the Society upon it. He thought that they ought to enter a most emphatic protest against the omission of such a representative.

Lord BLEDISLOE said he felt some embarrassment in listening to such a discussion when he was not quite sure whether he ought, under existing conditions, to continue to be a member of the Council; but he would like to say that he hoped that his friend Mr. Middleton would not suffer from shock for any prolonged period. If the resolution was passed, he would submit it very sympathetically to the Minister of Agriculture, and see if the wishes of the Council could be complied with.

The resolution was unanimously adopted.

In moving the adoption of the VETERINARY Committee's report, Sir MERRIK BURRELL thought that one word of explanation was necessary as to why the Committee had recommended that a portion of Sir John McFadyean's report, which would, of course, be published in the JOURNAL, should be issued to the Press prior to that publication. Sir John McFadyean's annual report was always full of valuable and interesting information; but this year he had compiled a report on the incidence of foot-and-mouth disease for the past six years, and especially as it referred to 1923 and 1924. In that report there was material of so much educational value, not only to the Society, but to the general public, that the Veterinary Committee thought that it would be wise and desirable that it should go out to the Press at once and should not only be published in the JOURNAL, where comparatively few people had the chance of reading it. It at once became apparent to the Committee on reading the report that the unvarying and strong support which the Council had always given to the slaughter policy had been more than justified. The most superficial study of it, especially of the latter part, in which there were comparative tables of the incidence of the disease in Great Britain and Ireland and in the neighbouring countries in the west of Europe, would show the comparatively happy condition in which this country was as compared with the deplorable conditions in other countries. The most conservative estimate that one could make showed, he thought, that if during the last years we had not maintained the slaughter policy, the loss in this country, instead of being under one and a half million pounds, to be borne by the whole nation, would have been at least four and a half million pounds, which would have been a direct loss borne entirely by the farming community. In addition, there was not the slightest doubt that this country, instead of being almost free of the disease, as it was at the

present moment, would have been overrun with it from the North of Scotland to Cornwall.

The PRESIDENT said that before he put the motion for the adoption of the Report of the SELECTION AND GENERAL PURPOSES Committee, he would like to refer for a moment to the death of their old friend Mr. Powell. Mr. Powell was known to practically every agriculturist in England, because of his many years' association with the Shorthorn Society and the Smithfield Club. He was a friend to everybody who had anything to do with him, and they all deeply regretted his loss. He would like, if it was the wish of the Council, to send a letter from the Society to Mrs. Powell.

The suggestion was agreed to, the members standing.

The HON. CECIL PARKER then moved the adoption of the SELECTION Committee's report, excluding the paragraph dealing with the dismissal of a member.

This part of the report having been received and adopted, a resolution to the effect that Mr. Robert Graham, of Auchengassel, Twynholm, be dismissed from the Society, was unanimously adopted, on the motion of the Hon. CECIL PARKER, seconded by the DUKE OF DEVONSHIRE.

The DUKE OF DEVONSHIRE, in moving the adoption of the RESEARCH Committee's report, said that it might interest members of the Council and enable them thoroughly to appreciate the variety and importance of the Committee's work to hear the subjects which were referred to at one meeting of the Committee on the previous day. The Committee had had to deal with questions of bullock-feeding, germination tests, lucerne, green manuring, the yield of oats, silage, the flooring of cow-sheds, incubators, the laying down of land to grass, and wool. The programme was a fairly comprehensive one. The Committee met eight times a year. He had been a very irregular attendant at the meetings of the Committee; but perhaps he might be permitted to say that he had never served upon a Committee which had been more industrious and hard working. It was trying to do in twenty-four hours in the year what he had not the slightest hesitation in saying would afford ample work for a strong Committee giving to it a full day's work once a week throughout the whole year. He thought that that was some justification to the Council for having adopted the line which it had adopted in providing the money. He believed that the Committee was doing useful work. He thought that the Council could quite justifiably expect, when it was asked to provide a large sum of money for continuing the experiments, that the Committee should be in a position to place some further results before the Council and before the public as a whole. The Committee was most anxious to do that. One could naturally understand that, in the investigation of various problems such as he had referred to, it was not always easy to determine the precise moment at which a report could be made. He hoped that at the next meeting of the Council the Committee might be in a position to make some further suggestions as to the taking of immediate steps to give further details in reference to the progress of the work which was going on.

Sir DOUGLAS NEWTON—pursuant to notice—moved:—

"That the Royal Agricultural Society of England desire to draw the attention of the responsible authorities to the need of encouraging genetic research and field trials for yield and quality of sugar beet."

Farmers in the Eastern Counties, he said, now saw a remarkable new agricultural development in the building and encouragement of factories for the production of sugar. It was the one ray of sunshine which agriculture, so far as arable agriculture in the Eastern Counties was concerned, had seen for a very long time. Anyone could foretell that if the factories were successful many more would be erected. The movement was clearly a big one, and he hoped that the industry had come to stay. A very small percentage indeed of the seed required, which amounted to many

hundreds of tons, was produced in this country. He felt that the Royal, as the premier Agricultural Society, should do all it could to see that the seed was produced in this country as far as possible, and that that side of the industry was encouraged. Naturally enough, perhaps, growers used the foreign seed because they wanted to get the highest sugar content, and they also wanted to get the highest yield per acre. Until research had been carried out by responsible authorities, the confidence of the English farmer would not be given to the English-grown seed and the English-grown root. It was for that reason that he urged the need of trials.

Colonel G. L. COURTHOPE supported the resolution. The really strong reason why official action was necessary in the production of seed was that from the time of the purchase of ordinary commercial seed it took a full seven years to produce reliable seed again. Many people thought that it could be done in two years, but it could not. That was one of the great obstacles against what was suggested being done by the private enterprise of an infant industry; but a good deal had been done. There had been a propagandist body, the British Sugar Beet Society, in existence in one form or another for years. It had made arrangements in various directions for a certain amount of research. At its request, Professor Bateson had been working for years on the subject. One of the special points upon which he had been labouring was the attempt to transfer the rich sugar content from the fang into a root that could grow on the surface, in order to eradicate the great obstacle to sugar beet cultivation, namely, the difficulty of lifting. A proposal was put before the Development Commission in either 1911 or 1912 for the establishment of a seed-producing station in this country. That proposal was recommended, if his memory was correct, by the Development Commission, but turned down by the then Minister of Agriculture, in consultation with the Treasury. He hoped that the present Minister would take a more sympathetic view, if the recommendation of the Development Commission did not come under the Statute of Limitations, but still held good. Seed was being produced successfully at Wye, and other agricultural colleges; and a certain amount was produced under the auspices of Home Grown Sugar, Ltd., at Kelham. A great deal of valuable work on the subject had also been put in by Suttons, of Reading. Therefore research was not entirely new, but it needed encouragement. He hoped that the Society would take the subject up and try to induce the powers that be to give their support in the matter.

Mr. HENRY OVERMAN said that, in reading the resolution, he had wondered who the responsible people were whose attention was to be drawn to the subject. Farmers in Norfolk had grown sugar beet for many years, many years before farmers in other counties had thought of growing it at all. He would not like it to be thought that they had not thought about the seed question. It had been before them for the last three or four years. They approached Sir Daniel Hall, and held a meeting at the offices of the National Farmers' Union, at which he was present. When he mentioned the names of the gentlemen present, members would see that it was a pretty representative meeting of what he might call scientific workers in that sort of research, and that their conclusions ought to be of some value to the Council. There were present at that meeting, Prof. Sir R. H. Biffen, Prof. Bateson, and Sir Daniel Hall, and there were representatives of the seed trade, Mr. Sutton and Mr. Miln of Garton's—two firms who, perhaps, had done more for the improvement of the seeds of all cereals and roots in this country than anyone else. There were also present practical growers, principally from Norfolk, in which county the infant sugar beet industry was started. The conclusions that they came to were that the job was a very long one, and that it was not going to be done in one year, but that it might take five, seven, or ten years. The meeting came to the conclusion that the best way to deal with the matter was to leave it in the hands of those very prominent

seed merchants. The work had already started. He did not see who else could be got to do the work if one did not go to the big firms who were adopters and who knew the thing from A to Z. He must admit that it was most necessary that the matter should be dealt with. The contract that they had with the factories provided that the factories should supply the seed, which was practically all foreign. He admitted that that was not right. He would like to see the seed not only grown in England, but improved in England. There was no doubt that the people of this country were second to none in making improvements in such directions. It was his one regret that the money which started sugar-beet factories in this country was principally foreign money.

Lord BLEDISLOE endorsed Mr. Overman's appeal that Sir Douglas Newton should make clear what he meant by "responsible authorities." He rather assumed, from what had been said, that the Ministry of Agriculture was—possibly—one of the responsible authorities that might be indicated in the resolution. He would like to say—of course he was speaking without the book—that he thought it would be a disastrous thing if any Government Department were to entrench upon the legitimate and progressive sphere of our great seed producers or seed merchants in this country. After all, private enterprise had probably done more as regards efficient seed production in this country than had been done in any other country in the world. He would be very sorry indeed if a Government Department were expected to take over such work. On the other hand there were research institutions under Government aegis in this country. He was rather wondering, when Mr. Overman was speaking, as to which of the research institutions would naturally deal with the subject. He could not foresee at the present moment, with a peculiarly vigilant Chancellor of the Exchequer, what Colonel Courthope adumbrated as an extremely expensive enterprise being embarked on under existing conditions. If it was Cambridge, possibly Cambridge already had the matter in hand with its National Institute of Agricultural Botany. If it had not, no doubt it would take the matter in hand at an early date. He was sure that in that action the Ministry would give all possible sympathy.

Mr. MILN was very glad to hear what Mr. Overman and Lord Bledisloe had said. The leading seed merchants had, he said, had the matter in hand for some years; but they had not been able to grow seed on an extensive scale in this country simply because the factories had been controlled by foreign money. The factories insisted upon getting their supplies of seed from abroad. Those who had any knowledge of the mangold wurzel were well aware of the fact that the improvements which had taken place in mangold wurzels in this country were not second to any of those obtained in any other country in the world. The type of roots and the analysis of them were superior to anything known on the Continent or in any other country. After the meeting to which Mr. Overman had referred, seed merchants had gone into the matter still more extensively. They had had analysed the sugar-beet grown from what they called their homegrown sources in this country. The contents of them were quite equal to anything grown from seed supplied from abroad. If the leading seed houses only knew that there was a market for their produce they would be quite prepared to grow sugar-beet seed here on a very extensive scale. If thousands of tons of beet were cultivated in this country that would be another asset in our agriculture. Seed merchants were working on those lines, and they hoped that when some of the factories were controlled by English money instead of by foreign money they would have an opportunity of supplying the seed. They were quite capable of supplying seed which was equal to anything coming into the country.

Sir DOUGLAS NEWTON, dealing with some of the points which had been

raised, frankly admitted that much had been done ; but he pointed out that a great deal remained undone from the point of view of getting both a better quality of seed and a better yield per acre. Mr. Overman had referred to the words " responsible authorities." He (Sir Douglas Newton) really had in mind the practical sympathy, in financial terms, of the Ministry of Agriculture in encouraging those who were dealing with the problem. If the Ministry of Agriculture were sympathetic, the Development Commission would unloosen their pockets, and there would be financial resources for carrying out experiments with advantage and benefit to the industry. It was true that there was an excellent seed-testing station supported by the seed trade, in fact, almost started by the seed trade, in the National Institute of Agricultural Botany at Cambridge. They would be prepared to do anything that they were asked to do. But these things turned on the question of finance, and it was for that reason that the sympathy of the Ministry was so essential in the development of the industry.

After some further discussion, in which Col. COURTHOPE, Mr. MILN, Mr. ADEANE, the DUKE OF DEVONSHIRE, Sir DOUGLAS NEWTON and the PRESIDENT took part, Mr. MIDDLETON moved as an amendment that the subject be referred to the Research Committee, who should be asked to report to the next meeting of the Council.

The motion was seconded by Mr. ADEANE and carried.

The original motion was then put to the meeting.

Sir DOUGLAS NEWTON asked whether he might move as a substantive motion that the Research Committee should be empowered—because time was flying and the matter was an important one—to get into touch if they so desired with the Development Commission, the Ministry of Agriculture, or any other responsible body.

The PRESIDENT thought that the Council could safely leave the matter in the hands of the Committee.

Sir DOUGLAS NEWTON said that he was content as long as it was understood that the Committee had the power.

WEDNESDAY, MARCH 4, 1925.

Sir GILBERT GREENALL, Bart., C.V.O. (President), in the Chair.

Before beginning the proceedings the SECRETARY, at the PRESIDENT's request, read letters received from the Earl of Coventry, acknowledging the Council's congratulations on his diamond wedding, and from Mrs. Powell, thanking the Council for their expression of sympathy on the death of her husband, the late Mr. E. J. Powell.

Two new Governors and 190 new Members were elected.

The Report of the FINANCE Committee having been presented, Mr. ADEANE moved first of all the adoption of that part of it which did not refer to the accounts or the estimates. This portion of the report having been adopted, Mr. ADEANE, dealing with the accounts, said that last year the Society began with a balance carried forward of £3,368, and the income from all sources during 1924 was £19,926, giving a total of £23,295. The payments, which included an investment of £2,500 in Conversion Loan, amounted to £19,421, and the balance carried forward at the end of the year was £3,874. With regard to the balance-sheet, the only matter to which he need refer—he thought that it was a satisfactory one—was the reserve fund. That now stood at £116,033. If the Members of the Council would refer to the sheet which dealt with the funds held by the Society upon trust, they would see that there was a fund held in trust that was left by the late Sir Walter Gilbey. That fund was very generously established by Sir Walter some years ago to start an Agricultural Lectureship at Cambridge. At the end of twenty-one years the capital sum was to fall

into the absolute possession of the Society, the idea being that a part of it should be used for the redemption of the Harewood House debenture stock. As a matter of fact, when Harewood House was sold, twenty years ago, those debentures were extinguished. The Finance Committee recommended that the Council should continue to grant the interest on the money to the University of Cambridge to assist the University in maintaining the Lectureship. He hoped that the Council would agree to that course being adopted. The present value of the fund was £934.

The Accounts were adopted together with the estimates of receipts and expenditure during the present year.

In presenting the Report of the Journal and Education committee, Col. CORNWALLIS said that the generous gift by Major Amery would, he believed, give the Society the most complete collection of Arthur Young's works possessed by any institution in the Kingdom.

The CHEMICAL Committee's Report was read, and, in moving its adoption, Mr. LUDINGTON said the Committee felt that the Council were much indebted to Lord Bledisloe for the prompt action he had taken in the matter and the help he had given. It was satisfactory to know that the Society would be represented on the Advisory Committee in connection with the Fertilisers and Feeding Stuffs Act; but, at the same time, the Committee felt that the Council ought to have been represented on the other committee, the Technical Committee. He thought that the Society's Chemical Adviser could have helped very much in drawing up the schedules and in the technical work. The other Committee seemed almost to be an afterthought. Notice was given in the Press, first of all, when the Committee was set up, and it seemed as if there would only be one Committee, which would deal with the whole matter. Now, it seemed, there was another Committee to be appointed to deal with the subject when the schedules had been passed. The Chemical Committee felt that a Society of the standing of the Royal ought to have had some representation on both Committees.

Mr. CHRISTOPHER MIDDLETON wished to say a few words before the report was adopted. He was glad to see that Lord Bledisloe was present. Lord Bledisloe had been good enough to send him a copy of the letter he had addressed to Sir Gilbert Greenall on the question. Some further correspondence had taken place. He was very much obliged to Lord Bledisloe for the kindness he had shown in the matter. At the same time, he was anything but satisfied with the explanation given by the Ministry. He understood at the time, and he still understood, that a principal recommendation of the Committee was that there should be an Advisory Committee set up which would become a permanent Advisory Committee to advise on technical matters. The complaint at the Council Meeting a month ago was that the "Royal" was not represented on that Committee. It appeared that the Committee, which was not a small Committee (it had sixteen members, he thought) had appointed a smaller Committee from itself to draw up schedules which were the very foundation of the Act. He did not think that any co-optation of a member of the Society now would have very much effect. The foundation had been laid. The reference to the Committee was to draw up schedules with definitions. The schedules were absolutely the essence of the Act. The fact that the "Royal" was not represented on that Committee was, he considered, a very great misfortune. He did not think that very many members of the Council were competent to sit on the Committee: very few, if any, of them had the technical knowledge required; but he said without hesitation that it was a very great misfortune that Dr. Voelcker, who had been a member of the original Departmental Committee, had not been put upon it. He did not know whether the inclusion of his name would have very much effect now. He was afraid that the omission might have caused a very great deal of harm. He felt bound to make this protest, as he could

not quite agree with the report of the Committee when he was present at the meeting on the previous day.

In moving the adoption of the report of the BOTANICAL AND ZOOLOGICAL Committee, Colonel WHEELER called attention to the reference in the report to damage to wheat caused by frit fly. Just two years ago the Society had an exactly similar report with regard to oats. It seemed that there was a very considerable risk in planting corn after rye grass.

A suggestion by Mr. FRANK MATTHEWS that the Class in the schedule for "Shorthorn heifers in milk born in 1922" should be altered to read "Shorthorn heifers in milk or *in calf* born in 1922," was referred to the Stock Prizes Committee for consideration when drawing up the Prize sheet for the 1926 show.

The DUKE OF DEVONSHIRE, in moving the adoption of the report of the RESEARCH Committee, said a special resolution would have to be passed in the event of the Council approving the minutes of the Committee with reference to Sir Douglas Newton's proposal. The report in the hands of members of Council dealt with some of the activities of the Committee, but it was only an interim report of progress in dealing with a very considerable number of subjects.

The Committee's report having been adopted, it was resolved, on the motion of the DUKE OF DEVONSHIRE, seconded by Sir MERRIK BURRELL:—

"That the B. A. S. S. desire to draw the attention of the Ministry of Agriculture and the Development Commission to the need of encouraging genetic research and field trials for yield and quality of sugar beet."

Colonel G. L. COURTHOPE said there was a Bill now in committee in the House of Commons dealing with the importation of pedigree animals, and by the Bill the test as to the availability for importation was to be the recognition of the breed by the Minister of Agriculture for the time being. The Minister would have to decide whether or not a foreign Herd Book should be recognised as qualifying for admission into this country. There had been no time to consult the President; but some of the Members interested were endeavouring to delete the "Minister of Agriculture" as the judge and to insert the "Royal" as the deciding factor as to whether the foreign Herd Book should be recognised as qualifying a foreign breed. He thought that he ought to mention the matter. The Bill would be before Standing Committee B in the House next week.

The PRESIDENT thought that the suggestion was a most excellent one, because practically every breed was represented in the Society.

Other Members of Council having spoken in support of the proposal,

Lord BLEDISLOE said that it was obviously impossible for him to express an opinion on the matter. If he did, he might find himself officially differing from his views as an individual. In any case, if the matter came before the Ministry, it would receive due consideration.

WEDNESDAY, APRIL 1, 1925.

Sir GILBERT GREENALL, Bart., C.V.O. (President), in the Chair.

The PRESIDENT said he felt sure the Council would all learn with regret of the death of Mr. W. J. M. Dagnall, which had come upon them with great suddenness. Mr. Dagnall had been a servant of the Society for over thirty-seven years, and had filled nearly all the clerical positions in the office before being appointed Chief Clerk and Cashier. The PRESIDENT was sure it would be their wish that he should convey to Mr. Dagnall's widowed mother, his three sisters and brother, the Council's very sincere sympathy in the loss they had sustained, and he would, as President of the Society, formally move that a vote of condolence be sent to Mr. Dagnall's relatives. The Council signified their agreement by rising in their seats.

Seven new Governors and 144 new Members were elected.

On the presentation of the Report of the CHEMICAL Committee, Mr. CHRISTOPHER MIDDLETON said that he agreed with the report, but would like to accentuate that part of it which dealt with milling offals. He thought it was quite impracticable that there should be a division into so many grades mainly based upon fineness of grinding. From his experience, farmers received less value in their purchases of milling offals than they received in connection with anything else that they used. He thought that the point to which he had referred should be thoroughly gone into again, because the way in which offals were dealt with was quite unsatisfactory.

SIR MERRIK BURRILL, in presenting the VETERINARY Committee's Report, said the Council would remember that a great difficulty was recognised by most people in the first big outbreak of foot-and-mouth disease owing to so many local authorities having power to issue regulations. There were some 355 authorities in England and Wales which could issue regulations. That had led to very great administrative difficulty, and it was felt that great danger was caused by the mere fact of there being so many such authorities. Evidence had been given before Captain Pretymann's 1922 Committee to that effect. He personally gave evidence, and brought forward concrete instances of the harm that had been done. The views expressed were accepted by the Committee, and, in their report, they recommended that there should be only one authority under the Diseases of Animals Acts in any one geographical county. The Council early last year sent in a recommendation to the same effect. When the report of Captain Pretymann's 1925 Committee, as he would call it, came out the other day it was seen that it contained, when it came to deal with this question, what seemed to be some very contradictory paragraphs. In effect, it went back entirely upon what was recommended in 1922. It said "It is clear that the present policy"—that was the policy of having so many local authorities making Orders—"results in anomalies and tends to detract from the value of regulations made by a county, when the boroughs in that county do not take similar action." Then it went on to say "The successful formation of the suggested Joint Committee for the purpose of making regulations would be of great value. It would, we think, tend to prevent the making of unnecessary restrictions, and, by enabling local authorities more readily to realise and to appreciate each other's interests, would lead to the establishment of a much better feeling between the counties and the boroughs, which would in itself contribute materially to the success of eradication measures." That was exactly in accordance with the evidence given before the Committee when they sat formerly, but, notwithstanding that, they went on to say "In view, however, of the inherent difficulty of securing adequate representation of diverse and frequently conflicting interests, which, after very careful consideration, we can see no method of overcoming, we think the recommendation in favour of a joint committee must be abandoned." The Departmental Committee did not give any particulars at all of what the inherent difficulties were or why they could not be overcome if they existed. He had spoken to people like chief constables and chairmen of County Councils and other people who might be expected to know, but not one single person had given him any reason to think that such difficulties as there were could not be overcome with a little goodwill between the County Councils and the boroughs. He believed that the real difficulty was jealousy in the minds of the Borough Councils, who thought that the County Councils might interfere with their markets and possibly with the provision of an ample supply of fresh meat to their populations. He did not for a moment think that if the suggested Joint Committee were set up that would be the result. He considered that the result would be that there would be perfect harmony in action, that the populations of the boroughs would be adequately fed, and that the interests of the agricultural community as regards their flocks and herds could be perfectly well safeguarded.

Mr. ALFRED MANSELL, as a member of the first Departmental Committee, said that all the members were unanimous upon the question of having one authority in each county. He very strongly supported the recommendation.

The Council of the "Royal," the National Sheep Breeders' Association, and many other public bodies, had been asking the Ministry of Agriculture to do everything it possibly could to eradicate sheep scab. They had called attention to the fact that Australia and New Zealand, which were very big countries, had been able to eradicate it. They had told the Ministry on several occasions that the only possible way of getting rid of sheep scab was by throwing the onus on the owner of the flock. An Order was issued on June 30th, 1923, which came into operation on July 30th, 1924. That threw the onus on the owner to keep his flock clean. The owner could be fined a sum not exceeding £20 in the first instance, and he took it that afterwards he could be fined whatever the magistrates thought fit. The Council had called the attention of the Ministry to the fact that no headway was being made against the disease, and they had always been told to "wait and see." They had waited and seen the result of the Order. There had been thirty more outbreaks this year than last year, and fifty-two outbreaks last month as against twenty-two in the month before. The disease was very widespread. It was not as if it was confined to one county, but it was practically all over the country. It would never be got rid of until the magistrates imposed adequate fines, and threw the whole onus for sheep scab on the owner. He hoped that the Council would send a letter to the Ministry, calling attention to the fact that the Order had been an utter failure, and pointing out that the only possible way of dealing with it was to secure that those who sat on the bench imposed adequate fines.

Colonel G. L. COURTHOPE suggested that, in the eve of the Council approving of the proposed letter, steps should be taken to bring it before the Minister of Agriculture that afternoon. There was to be a meeting of the Advisory Committee that afternoon at half-past two, and one of the points upon the agenda was the matter of sheep scab. He saw that Lord Bledisloe was present, and possibly his Lordship might be a useful messenger.

Lord BLEDISLOE said that, as Colonel Courthope had alluded to him, perhaps he might be allowed to say a few words. First of all, in reply to Mr. Mansell, he assured the Council that, whatever the Ministry of Agriculture might have been in the past, they were not at the present moment a "wait-and-see" Ministry. Their great anxiety was as to whether their agricultural friends in the course of the next few years might not view them with some suspicion as being an unduly revolutionary body. Both as regards sheep scab and as regards foot-and-mouth disease, the great difficulty was the question of local autonomy. So far as the magistrates were concerned, the Ministry had very little to say in relation to them. That was more a matter, perhaps, for the Home Office than for the Ministry.

With regard to the paragraph in the Departmental Committee's report to which Sir Merrik Burrell had referred, it had occasioned at least as much surprise in the Ministry of Agriculture as it had occasioned in the Council. In fact, the matter was now being investigated. But he was bound to say that, on review, the Ministry were prepared to accept the position that the time had come when there ought to be one authority only within the geographical county. The opinion of the Council in support of that view would undoubtedly influence the decision of the Ministry in that respect.

The spread of sheep scab was unquestionably serious, and was causing anxiety; but whatever might be done as regards the individual delinquent by the magistrates, the real trouble, when all was said and done, was that certain counties claimed for themselves in those matters an autonomy

which many people thought had better be replaced by a stronger centralised administration. With regard to double dipping and the period within which that dipping was to take place throughout the country, he ventured to hope that the Council would support any action that the Ministry might be prepared to take in the matter.

SIR ARTHUR HAZLERIGG, referring to the remarks which had fallen from Sir Merrick Burrell in reference to the Departmental Committee's report, thought that all the members of the Council had been very much surprised to see that the Committee now stated that the inherent difficulties were too great to have one authority for the county and county boroughs. He would like to say, as one who had served as Chairman of a County Council, that he did not think that the difficulties were such that they could not be overcome. He thought that he was correct in saying that both the County Councils Association and the Council of Agriculture for England had recommended that there should be one authority for each county. He hoped that, in view of those expressions of opinion, the Ministry would see that the report of the Departmental Committee on that particular subject had not much regard given to it.

SIR DOUGLAS NEWTON said that, he understood that there was a possibility of Lord Bledisloe acting as messenger between the Council and the Ministry, he would like to suggest that he might also be good enough to look into the question of swine erysipelas. In his part of the world there had been a good deal of discussion about that matter. He could not claim to have any technical knowledge of it, but he understood that one of the methods of treatment depended upon a supply of virus, bacteria, and so on, and that supplies were not obtainable in this country. A great deal of feeling had arisen in regard to that matter.

Alluding to sheep scab, he would like to say that agriculturists in his district felt that the onus should be placed upon the owner of the sheep. There was, he was sorry to say, a great deal of opposition to double dipping, particularly if it took place at certain times of the year. It was claimed that it made the sheep sterile, and that it had a very deterrent effect upon the number of lambs. Whether or not that was so he did not know, but that was a view strongly held amongst some farmers, particularly where the short wool sheep were concerned. It was said to affect them much more than it affected the long wool sheep.

MR DAVIS BROWN wished to make one remark upon what had fallen from Lord Bledisloe in which he seemed to adumbrate that the Ministry of Agriculture might go in for a double dipping Order all over the country. That hardly seemed necessary. Suppose that there was a stray case in the county from which he came, Norfolk. To insist upon the double dipping of every flock of sheep on account of a single case that might appear in a county was like trying to crack a nut with a sledge hammer. It seemed to him that the Ministry ought to insist upon double dipping at the seat of the disease and at the place where it was particularly prevalent, and not all over the country.

MR TINDALL said that, as one who had been Chairman of the Lindsey County Council in Lincolnshire, he would like to say that he felt certain that there would be very little difficulty indeed, so far as his own county was concerned, in carrying out the proposal which was now before the Council. He would like to support to the full what had been said by Sir Merrick Burrell. He had had some little experience in the matter, and he did not think that there would be any difficulty at all, or at any rate there would be very little difficulty between the boroughs and the counties. The only difficulty, as far as he knew, would be, so far as the boroughs were concerned, in connection with the fat animal and the store animal. The boroughs had something to say with regard to the supply of cattle to their markets. He believed that when those concerned got together the difficulties would very soon be settled.

He would like to support Mr Mansell in what he had said with regard to sheep scab. It was nothing short of a scandal that there should be sheep scab in Great Britain. He would be one of those who would go to any extreme with a man who had sheep scab on his premises after a certain time.

SIR MERRIK BURRELL said that, before the motion for the adoption of the report was put, he would like to ask whether Sir John McFadyean bore out the suggestion made by Sir Douglas Newton that double dipping was a cause of sterility in sheep. If it was not true, and if it went out into the Press, it would have a rather deplorable effect on the minds of flock owners. It was hard enough now to get flock owners to do what was required, but if that kind of suggestion was put into their minds and if it was not accurate it would have a very bad effect.

SIR JOHN MCFADYEAN said that he had great difficulty in understanding why anyone who had studied the history of sheep scab in this country should be in favour of compulsory universal double dipping. It seemed ridiculous, seeing that there was not anything like 1 per cent of the flocks in this country that had sheep scab. It could do nothing towards the eradication of the disease to compel, he thought it would probably be, about 999 people out of a thousand who had not sheep scab, to dip their sheep. It would be a futile proceeding, and it would do no good to anyone except those who were engaged in the manufacture of dips. He was quite sure that it was a mistake to suppose that double dipping caused sterility. Long experience had shown that it did not.

The Veterinary Committee's Report was then adopted, and, on the motion of Sir MERRIK BURRELL, seconded by Mr MANSELL, it was resolved that a letter in the following terms should be signed by the President and sent to the Ministry of Agriculture —

Report of Departmental Committee on Foot-and-Mouth Disease.

The Council of the Royal Agricultural Society desire to express their regret at the reversal of opinion of Captain Pretymann's Committee of 1922 as to the desirability of there being only one Diseases of Animals Committee in each geographical county by the Committee which has reported recently. The Council recognise that there are difficulties, but do not agree that they cannot be overcome.

The Council therefore beg to forward to you their resolution of February 6th, 1924, which they reaffirmed at their meeting of April 1st, 1925 —

"That the Council of the Royal Agricultural Society is strongly of opinion that legislation is urgently needed providing that there shall be one Authority only for the control of Animal Diseases in each geographical county, which should be a Joint Animal Diseases Committee representing the County and Borough Councils within the boundaries of such County."

After some further discussion, the SECRETARY said that in the event of an emergency arising he would communicate with the President, and he pointed out that the Council had to endorse whatever the Veterinary Committee did.

Mr. ALFRED MANSELL moved —

"That the Council desires to call the attention of the Ministry of Agriculture to the failure of the Sheep Scab Order of 1923, as at present administered, and urges the Ministry to give the matter their most serious and prompt attention."

This was seconded by Mr TINDALL, and carried.

Colonel STANYFORTH presented the IMPLEMENT Committee's Report. He was sorry to say that the entries of implements were not so large as in recent years, but, considering the badness of trade generally, and the fact that implement makers had had very bad times lately, the Committee were not at all surprised. As a matter of fact, the entries were quite up to their expectations, and, needless to say, there would be plenty of implements to make a good show.

Mr. ALFRED MANSELL said he was not aware until that morning that

he had been appointed one of the representatives to wait on the Minister of Agriculture. It occurred to him that if members of the Council had any suggestions to make they might put them in writing and send them to the Secretary, who could then pass them on to Sir Gilbert Greenall, Mr. Evens, and himself.

The PRESIDENT hoped that members would do as Mr. Mansell had suggested. If anyone had anything which he would particularly like to have brought before the Minister he should let the representatives have notice of it in good time before they had an interview with the Minister, and they would see that the matter had every consideration.

The Report of the RESEARCH Committee having been presented, Sir DOUGLAS NEWTON said the Council had not had all the particulars with regard to the scheme which had been arranged with the National Institute of Agricultural Botany; but he would like to say how greatly they welcomed the very generous provision which had been made for dealing with the matter of sugar-beet development. The matter was raised in the House of Commons a few days ago on the Second Reading of the Sugar Beet Bill. The resolution of the "Royal" was then referred to, and the Minister of Agriculture expressed himself as being in full sympathy with the terms of that resolution, and undertook to advance the cause of genetic research in connection with the Development Commission and his own Department.

Lord BLEDISLOE wished to refer to one matter. He noticed that the Committee had decided not to proceed with the investigation into the protein content of roots. He thought that in this country we had been perhaps a little behindhand as compared with certain Continental countries in this line of research. In recent years most valuable work had been done in this connection by the Agricultural Department of Denmark. In fact, the most up-to-date work on this subject came from Denmark. The results had been published in English, and he ventured to hope that some members of the Council, at any rate, would study them.

On a motion from the chair, the seal of the Society was affixed to the agreement with the Corporation of Reading in connection with the holding of the 1926 Show, and to a letter of attorney to the Society's bankers for the sale of £5,560 17s. 8d. Five Per Cent. War Stock 1929-1947.

WEDNESDAY, MAY 6, 1925.

Sir GILBERT GREENALL, Bart., C.V.O. (President), in the Chair.

Before commencing the business on the agenda, the PRESIDENT referred to the loss the Council had sustained in the passing of Mr. W. W. Chapman. Mr. Chapman was, he said, a man of many parts and a most industrious worker in the cause of live stock breeding and its improvement. He became a Member of the "Royal" in 1881 and a Governor in 1913, since which year he had represented the division of London on the Council. He was at the time of his death Secretary of the National Cattle Breeders' Association and the National Sheep Breeders' Association, and had been connected with the Southdown, Kent or Romney Marsh and other sheep societies. As a shipper and exporter of live stock, he must have had some valuable animals through his hands at various times, whilst as an agricultural journalist his untiring pen had expressed his views in many journals and in other branches of literature.

The PRESIDENT added that he happened to be in the office when the Secretary received notification of Mr. Chapman's death, and he immediately wrote to his widow, but he was sure it would be the wish of the Council that he should convey their sympathy to Mrs. Chapman and her family.

The members present signified their assent by rising in their seats.

The PRESIDENT said he was sure all the members would very much regret to hear that their good friend Mr. Miln, who had taken such an active part in the arrangements for the Chester Show, was knocked down by an omnibus at Euston Station on the night before last. He broke his leg and fractured a small bone in his ankle. The leg was set yesterday. He had heard that morning that Mr. Miln was going on very well and had had a comfortable night.

Three new Governors and 184 new Members were elected.

On the motion of Mr. ADEANE it was resolved :—

"That the Westminster Bank, Ltd., 1 St. James's Square, be requested to open a new current account, in the name of the Society, to be styled 'Gilbey Bequest Account,' and to transfer to the credit of this account the sum of £208 9s. 4d. from the Society's General Account, representing accumulated income and funds uninvested."

"That the Bank be authorised and directed to invest this sum in the purchase of Metropolitan Water Board 'A' Stock in the name of the Society as an addition to the existing holding of £1,140 of like stock, and to hold the certificates of the entire holding on a separate security account styled 'Gilbey Bequest Account'."

"That the Bank be directed to place to the credit of the Gilbey Bequest Account all dividends received on the above holding of Metropolitan Water Board 'A' Stock."

The first three paragraphs of the Report of the CHEMICAL Committee having been presented, the PRESIDENT said that a resolution had been handed in by Lord Strachie. It would be seconded by Sir William Mount. It rested with the Council whether it was allowed to be put or not. The proper notice had not been given, but under the bye laws the Council could decide. It was as follows :

'That the Council of the Royal Agricultural Society of England is opposed to any duty being placed upon imported superphosphates.'

He asked whether the Council would allow it to be moved.

Permission having been given, Lord STRACHIE moved that the resolution which the President had read should be adopted by the Council. He did it on the following grounds. The Agricultural Committee of the Somerset County Council the other day unanimously passed a resolution to a similar effect, and he thought it very desirable that a great Society such as the Royal, which represented agriculturists, should be asked to pass a similar resolution, because of the great weight and effect that it would have with the Board of Trade in such a matter. It was not necessary for him to labour a matter of that sort, with so many experts present, who, he thought, would entirely agree with him that it would be a very serious matter indeed if the application of the manufacturers of fertilisers was acceded to. The object of the manufacturers seemed to be either the entire prohibition of the import of superphosphates or the imposing of such a heavy duty upon them that the cost to the arable farmer would be increased from 50 to 100 per cent., or might even be trebled. Those who were interested in the cultivation of arable land considered superphosphates very much as their raw material. It had always been said in reference to raw material that no taxation at all ought to be put upon it. He was one of those who felt that it was a very serious matter indeed to begin to enter upon the question of imposing taxation upon imports of raw material, whether the farmers' raw material or the manufacturers' raw material. The fertiliser manufacturing industry was not like a new industry, such as the sugar-beet industry, which was an entirely different matter. It was usually acknowledged that in the case of a new industry it might be desirable to give a subsidy for a certain number of years in order to start it. This was an entirely different matter. He was quite sure that arable farmers, whether they were growing corn or growing potatoes, would agree with him when he said that it would be a very serious matter indeed if them if a heavy duty was put upon superphosphates, and that it would certainly be ruinous if the import was prohibited altogether.

Sir WILLIAM MOUNT, in seconding, said that he did not think that he need add much to what Lord Strachie had said. Although it might be

said, and he dare say with truth, that the manufacturers of superphosphates in this country had been very hard hit, no one, he thought, could deny that agriculturists were equally hard hit, and a time when every effort was being made to encourage the use of artificial manures amongst farmers seemed to him to be rather an inopportune time to impose a duty which might have the effect of hampering the use of a very useful article like superphosphates.

Colonel G. L. COURTHOPE said that, while he was in entire agreement with the mover and seconder of the motion that anything that might hamper the agricultural industry or add to its difficulties should be opposed by the Society, he should rather deprecate the passing of such a motion until the Society had before it the Report of the Safeguarding of Industries Committee, which he understood was investigating the matter. He did not think that members knew enough about the question. Personally, he frankly confessed ignorance on the subject. He thought that it was conceivable that when they had full information before them they might find themselves in the position of discovering that it was a question between maintaining two sources of supply—a foreign supply and a home supply—and eliminating the home one, and leaving it entirely in the hands of the foreigner. If that position did arise, he doubted whether it would be in the interests of the farmer, the user of superphosphate, to refuse to maintain the British industry. On the other hand, they might find a totally different set of circumstances which would entirely justify Lord Strachie's proposal. He would ask Lord Strachie to consent to an adjournment of the discussion until the Report of the Safeguarding of Industries Committee on this particular subject was in their hands.

Mr. CHRISTOPHER MIDDLETON said that the matter came before the Chemical Committee on the previous day, and while a good many of the members were entirely in sympathy with the motion moved by Lord Strachie, they felt that there were two sides to the question, and that it was not opportune at the moment for the Council to take the action indicated by Lord Strachie's motion. There was a Departmental Committee considering the question, and he thought that, until members had the Report of that Committee in their hands, they were scarcely in a position to pronounce a final opinion on the matter. He thought that it would be a very good thing for the Society to nominate someone representing the large users of superphosphates in this country to give evidence before the Committee. There was no doubt that there was a good deal to be said on either side, and it was possible that, if the motion were carried, it might eventually make superphosphates dearer instead of cheaper. He believed that there were very great difficulties at the present moment attached to the manufacture of superphosphates in this country. The passing of the motion might possibly do a great deal of harm. He thought that the best course to take at the present moment would be for Lord Strachie to withdraw his motion, and ask that the Society should send a witness or witnesses to give evidence before the Committee.

Mr. LUDINGTON said that he had thought it best that paragraph 4 of the Chemical Report should not be read until Lord Strachie had moved his resolution. He would like to ask the Secretary now to read that paragraph.

Sir DOUGLAS NEWTON wished to reinforce the view put forward by Colonel Courthope, that the members ought not to act with precipitancy in regard to the matter. It would be quite possible to devise a scheme by which assistance would be given to the superphosphate manufacturers, and at the same time no disadvantage accrue to the agricultural community. He did not think that they were in a position to deal with the matter until they saw the Report of the Departmental Committee.

Lord BLEDISLOE hoped that the Council would not at that stage pass such a resolution as Lord Strachie suggested. As Colonel Courthope had

pointed out, the matter was now *sub judice*, and the proper way, of course, in which to express an opinion was by sending witnesses to give evidence before the Safeguarding of Industries Committee. At a subsequent stage, when the Committee's Report was available, it would still be open to the Council, if it thought fit, to pass a resolution in the terms suggested by Lord Strachie, before any action was taken. The Ministry of Agriculture had been approached with a view to their giving evidence in support of the claim of the superphosphate manufacturers; but they did not feel justified in taking any action in the matter, as obviously there was a good deal to be said on both sides. At any rate, the Ministry of Agriculture did not feel justified in appearing to take a side which might be regarded as inimical to agricultural interests.

Mr. LUDINGTON then moved that the following minute (paragraph 4) of the Chemical Committee be added to their report:—

"It had been reported to the Committee that Lord Strachie proposed to ask the permission of the Council on Wednesday to move a resolution to the effect that the Society is opposed to any duty being placed upon imported superphosphates. After discussion, the Committee had decided to express the view that, pending the issue of the report of the Committee which is considering this question, the Chemical Committee consider it premature to express an opinion."

Lord STRACHIE asked to be allowed to refer to what had been said by Mr. Christopher Middleton. Mr. Middleton had asked him to withdraw his motion, and at the same time had said that it was desirable that a witness should be sent to the Departmental Committee to express the views of the Council. He did not see how the Council could send any witness to express its views if it did not pass any resolution. One of his objects was to get an expression of opinion from the Council on the question whether it was or was not opposed to the proposed import duty. If it was opposed to it, then, naturally, the proper thing to do under the circumstances—and it would be desirable, no doubt, also from the Committee's point of view—would be that the Council should be represented and that evidence should be given on its behalf against the proposed import duty. That seemed to him to be very simple. On the other hand, he could not understand Sir Douglas Newton and the Parliamentary Secretary of the Ministry of Agriculture, who took the view that it was better to wait until the question was decided against agriculturists, and that then agriculturists should make their protest. Surely that was locking the stable door after the horse had been stolen. He was rather surprised at his noble friend objecting to the motion, because when the question came before the Agricultural Committee of the Somerset County Council Sir Robert Sanders, late Minister of Agriculture, got up and most strongly supported a motion similar in effect to that which he (Lord Strachie) had moved, deprecating the imposition of an import duty. He would not have taken up that attitude if he had thought that it was not a proper thing for the Ministry of Agriculture to give evidence before the Committee. He must persist in his motion because he thought that it would be very serious indeed if a great Society like the Royal did not express any opinion in regard to a matter which was of vital and grave importance to the arable farmers of this country. He must really press it, because he considered that it would put the Council in an unfavourable position if it was not to express an opinion upon it and if it was not to send a witness to give evidence before the Committee.

Mr. LUDINGTON then moved the fourth paragraph of the Report of the Chemical Committee as an amendment to Lord Strachie's motion.

The amendment was carried with two or three dissentients.

Sir DOUGLAS NEWTON said that, arising out of the Report of the Implement Committee and the proposed sugar-beet trials, he understood that the rules governing those trials would exclude the trial of any machine not wholly made, or at any rate principally made, in this country. While, no doubt, it was a good rule to give as much preference to our own people

in every way as was possible, at the same time, in the case of an entirely new development like the sugar-beet industry, for the furtherance of which there was no machinery, or practically no machinery, in this country, it seemed to him to be unwise to exclude the trial of Continental machinery. He had received a letter, a sample of many, from a farmer who said that he had heard of an implement used on the Continent for lifting sugar beet, and that if he (Sir Douglas) knew anything about it he would like to know, if he could tell him, where it could be purchased, and the approximate price. That was the kind of letter which he was constantly getting from his farmer friends. It might be well for the Council to request the Implement Committee to consider the matter in the light of the exceptional circumstances which obtained in regard to sugar beet lifting and topping with a view to having some classes open for Continental competition. What farmers in the Eastern counties who were going in for sugar beet growing feared was not the preparation of the land, and was not even the singling of the crop, but it was the lifting and the topping. If the difficulty of the lifting and the topping could be got over (and they could see no way of getting over it except the use of machinery of an improved type) a great boon would have been conferred on the unhappy arable acres of the Eastern counties. He moved that the Committee be requested to consider the desirability of having open classes in the proposed trials.

Colonel STANYFORTH said that, personally, he was very surprised, and he thought that the members of the Council would be very surprised, that Sir Douglas Newton should raise the question that day as he had done, inasmuch as it had been before the Council for about a year and a half. He (Colonel Stanyforth) had spoken about it several times at the Council. It was only at the last moment that Sir Douglas seemed to have heard anything about sugar-beet lifters. The speaker then quoted from a letter received from Sir Douglas and suggested that as a member of the Council Sir Douglas was informed of the position six or eight months ago. He might have known all about it if he had studied the work of the Implement Committee with reference to trials. The Committee had gone into the subject very thoroughly, and it was felt that the present was a time when agriculturists should try to help the English manufacturers of implements as much as they possibly could. As to it being possible to make an alteration now, he must point out that the regulations and the notices of the trials taking place had been issued for some time, and therefore the Committee could not possibly suggest any alteration in the present trials, and he did not think that the Council would suggest that it was possible to make any alteration. When it met yesterday the Committee knew that Sir Douglas was going to raise the question, but it considered that it would be quite impossible to make any alteration. He was sorry that this all important subject should have escaped the attention of Sir Douglas before, but the position had been gone into very carefully by the Committee, and it could not suggest to the Council that it should make any alteration in the trials. In fact, he did not think that it could possibly do so.

Colonel G. L. COURTHOPE said that the Chairman of the Committee had explained that it was impracticable to make any alteration, but he would like to point out that it was undesirable to make any alteration. It was the common practice, he understood, among machinery manufacturers of all kinds for them to arrange for the manufacture of their machines, patented or otherwise, at the works, and by the operatives of machinery manufacturers in other countries in which they wanted to effect sales. Our own machinery manufacturers made such arrangements for the manufacture of their machines abroad. In connection with the industry in which both Sir Douglas Newton and he were interested arrangements were actually in operation at the present moment by which the patentees of foreign machinery, not, it was true, as far as he was aware, machinery for

the lifting of the crop, but machinery for the conversion of the crop into sugar, were having machinery manufactured in this country. The machinery equipment for two factories was, within his personal knowledge, being made on the Clyde. It was of foreign design, and it was being made under foreign supervision. He wanted that same principle applied here to sugar-beet lifting machinery. If the foreign manufacturer thought that he had a machine which was better than its competitors he would wish to sell it in this country. Under existing regulations, he would have to come to an arrangement with an English machinery manufacturer to make it for him under his supervision, or else he would have to set up a factory. He (the speaker) did not mind which the foreign manufacturer did, but he was sure that it was desirable that, while sugar-beet growers wanted to get the very best machinery the world could produce for their cultivation, it should be made here. If it was made here it stood to reason that it would be much more accessible to the ordinary farmer who wanted to purchase it than it would be if he had to go and look for it in Czecho-Slovakia or some other remote corner of the earth.

SIR DOUGLAS NEWTON said that as Colonel Stanyforth had rather directed his observations at him because he had had the temerity to speak upon what he regarded as a very important point, he would like to say that he was very sorry if he had caused the Committee any trouble, but he was not a member of it, and therefore he could not have attended its meetings. Certainly he had not realised that a decision had been taken. He still adhered to his view that in a new venture like the sugar-beet industry, it was necessary to get the best machinery the world could produce to help the poor sugar beet growers in the Eastern counties. If the limitation was going to shut out from the trials the best and most suitable machinery, then he ventured to say that the Committee was not fulfilling its primary object of doing everything possible to further the interests of the agriculturists of this country.

SIR MERRIK BURRELL moved the adoption of the report of the RESEARCH Committee. In doing so, he wished, on behalf of the Committee, to express their very sincere regret that the absence of their Chairman was due to illness. The Duke's wide experience, his quick grasp of essentials, and his power of both forming and expressing an opinion, made him an ideal chairman. Everyone on the Committee would agree that his absence from it was a very real loss. They were all glad to hear that he was now on the road to recovery. He was sure that every member of the Council would join in wishing him a rapid and complete return to his full health, and in hoping that they might soon have the pleasure of seeing him once more amongst them.

As regards the Report he had very little to say, except that he hoped that within the next month or so the Committee might be able to tell the Council something quite definite about its experiments in the feeding of bullocks. The Committee had every hope that as the result of those experiments they would be able to save the farmers of this country a very large amount of money in the fattening of cattle in the future.

On a motion from the Chair, the Seal of the Society was affixed to a request to the Bank of England that the Westminster Bank, Ltd., hold the Society's stock in 3½ per cent Conversion Loan, and a request for the transmission of dividends on the same stock to the Society's bankers.

WEDNESDAY, MAY 27, 1925.

Sir GILBERT GREENALL, Bart, CVO (President), in the Chair

Three new Governors and 100 new Members were elected

The report of the FINANCE Committee was received and adopted, and, on the motion of Mr ADEANE, seconded by Mr ERNEST MATHEWS, it was resolved —

'That the Secretary be empowered to issue to any duly nominated candidate for membership of the Society, on receipt of the annual subscription a badge admitting the candidate to the same privileges as a member during the forthcoming show at Chester, the formal election of such candidate to be considered by the Council at their next ordinary meeting'

The PRESIDENT thought that members would all be very gratified to know what a splendid number of entries there was for Chester. There was a record entry of cattle for the Royal. There had never been as many entered before, and it was very satisfactory.

He was pleased to be able to say that His Majesty The King would visit the Show on Wednesday, July 8th, arriving at the Royal Pavilion at 12 noon, and he hoped that as many members of the Council as could possibly do so would be there to receive him.

Mr DAVIS BROWN drew attention to the question of entry fees at the Show. The amount received for entrance fees for cattle was, he said, £4,700 or thereabouts. It seemed to him that the fee of £3 per animal was exceedingly heavy, and acted as a deterrent to men who were not particularly wealthy in sending what might be some of the best animals to the Show. He did not think that the Society erred on the side of liberality with regard to its prize money. If it was looked into, it would be found that the entrance fee was 20 per cent of the first prize. He mentioned the point because he hoped that the Council might be able before another year to take into consideration the possibility of lowering the fee.

The PRESIDENT assured Mr Brown that they all wished that the entry fee could be reduced, but it did not seem to be a great deterrent. It must be remembered that there was a loss on every member's entry. The stalls had to be strong and the buildings had to stand far longer than any other show's buildings, because they had to be erected so far ahead. Many of the animals came on Friday before the Show, and most of them stayed until the Monday after. They were stalled, provided with hay and straw, and given green food and everything that they possibly wanted. Under the circumstances £3 was really very cheap. What was done could not be done for the money or anything like it.

Mr DAVIS BROWN thought that, considering the financial position of the Society, the fee might be lowered a little.

The PRESIDENT replied that the Committee would see what could be done.

Mr MATHEWS, in presenting the Report of the Dairy and Produce Committee, explained that the suiting that Prince Henry had been pleased to accept at the Leicester Show unfortunately turned out a little too short to make a suit of clothes, and therefore Professor Barker had to begin again. It was a most curious thing that he was unable to get any South down wool that was good enough after July until the spring of this year. That was the real reason of the delay, which Professor Barker had explained fully to him. However, Prince Henry, in his letter, was kind enough to say that it was quite worth waiting for.

The SECRETARY announced that the Trustees of the Queen Victoria Gifts Fund had decided to make a grant of £140 to the Royal Agricultural Benevolent Institution for the year 1925, to be devoted to grants of £10 each in respect of male candidates, married couples and female candidates, the actual distribution in each class to be left until after the election to pensions by the Royal Agricultural Benevolent Institution.

THURSDAY, JULY 9, 1925.

Sir GILBERT GREENALL, Bart., C.V.O. (President), in the Chair.

The PRESIDENT said that, before proceeding to the ordinary business, it was with deep regret that he had to announce to the Council officially the deaths of two of their number since the last meeting. Sir Bowen Bowen-Jones joined the Society in 1867. He was the "Father" of the Council, having been elected to the Society's Governing Body in the year 1871. During the period of more than half-a-century Sir Bowen served the Society in many offices. He was a Steward of Implements from 1881 to 1883 and from 1897 to 1899; he was Steward of Forage in 1884; a Steward of Stock from 1890 to 1893; and Steward of the Agricultural Education Exhibition from its inception in 1903 till 1914. He was also one of the original Members of the National Agricultural Examination Board. In his younger days Sir Bowen took a prominent part in the work of many of the Standing Committees; but to most of those present he would probably be best remembered for his activities as Chairman for several years of the Chemical and Woburn Committee. Among Sir Bowen's contributions to the Society's Journal was an article on "Typical Farms in Cheshire" which he wrote in connection with the Society's visit to Chester in 1893. He had been elected a Vice-President in 1905, and a Trustee in 1909. He had filled the office of President in the year 1919 for the Cardiff Meeting, the first post-war Show, which would be remembered as the most successful ever held up to that time.

Mr. C. Howard Taylor, whose passing it was the President's melancholy duty also to report, had joined the Society in 1888. He had been a Member of the Council since 1918 as one of the representatives of the West Riding of Yorkshire. He had served on the Chemical and the Botanical Committees.

The PRESIDENT expressed his regret that he had been unable to attend either funeral, but he had been represented on both occasions. He was sure they all deeply regretted the loss of those two most useful members.

A vote of condolence with the bereaved families was passed by the Council, the members present rising in their places.

On the motion of the PRESIDENT, seconded by Mr. R. B. NELSON, it was resolved:

"That the best thanks of the Society are due and are hereby tendered to:-

- (1) The Officials of the General Post Office for the efficient postal arrangements in connection with the Show
- (2) The Chief Commissioner of Police for the efficient services rendered by the detachment of Metropolitan Police on duty in the Showyard
- (3) The Chief Constable of Chester for the efficient Police arrangements in connection with the Show
- (4) The St John Ambulance Brigade, No IV District, for the efficient Ambulance arrangements in the Showyard.
- (5) Messrs Barclays Bank, Ltd, local Bankers, for the efficient services rendered by their officials
- (6) Messrs Merryweather & Sons, Ltd, for the provision of fire protection appliances, and for the efficient arrangements made by them in connection with the Fire Station in the Showyard
- (7) Messrs Brown & Co (Chester), Ltd, for decorating and furnishing the Royal Pavilion and for supplying furniture for offices
- (8) Messrs Dicksons Nurseries, Ltd, for providing Floral Decorations at Royal Pavilion "

Letters of thanks were also ordered to be sent to various individuals and firms for assistance kindly rendered, and for the loan of articles for the purposes of the Show.

The SECRETARY read a letter from the Principal of the Cheshire School of Agriculture, Reaseheath, extending to the Council and Members of the Society a cordial invitation to visit the School and the Experimental Farms attached thereto that afternoon.

Proceedings at the General Meeting of Governors and Members,

HOLD IN THE LARGE TENT IN THE SHOWYARD AT CHESTER,

THURSDAY, JULY 9, 1925.

SIR GILBERT GREENALL, BART., C.V.O. (PRESIDENT), IN THE CHAIR.

President's Opening Remarks.

The PRESIDENT said that, first of all, they could congratulate themselves on the wonderful show which was being held there. They looked forward to the financial result when it was known as likely to be one of the most successful in the long history of the Society. They all remembered the serious outbreaks of foot and mouth disease during the last two years and that Cheshire had suffered more in this respect than other counties, in fact, the county was almost entirely denuded of its cattle. When one thought of this and the remarkable recovery made by the county in such a short space of time, it was not to be wondered at that the men of Cheshire and its adjoining counties should, under the happier circumstances existing to-day, do all in their power to make this Show a memorable one.

He must congratulate the Local Committee upon the very fine ground placed at the Society's disposal, although a special resolution of thanks would be passed a little later on in the proceedings. When he had first inspected the ground it was a series of small fields, badly drained or hardly drained at all, and those who had paid a visit to the site some year or so ago would find it hard to realise that such an admirable showyard as they saw that day could have been made. Their thanks were also due to the exhibitors of both implements and live stock, who had always stood so loyally by the Society. He realised their difficulties, their disappointments, as well as their joys, and knew from experience that attending and exhibiting at shows was not an unalloyed pleasure. That Show in all sections was an excellent one, and the number of cattle entries had created a record. (Applause.)

Without the members of the Council, however, and the Stewards, who did so much to assist in the organisation of the Show, it could not be carried out so efficiently as it was, and he would like to tender to them on behalf of Governors and Members as well as himself their united thanks.

He did not want to weary them with figures, but he would just like to remind them that the present was the third Royal Show at Chester. The first was in 1858, and probably some of them had seen a print of this Show which was held on a portion of the Roodee, covering about 25 acres. Entries of live stock were then 1,026, representing 4 breeds of cattle, 2 breeds of horses, 4 breeds of sheep and 2 breeds of pigs. The attendance was 62,539, and the financial result was a profit of £1,119, the first the Society ever made.

In 1893, when the Show again visited Chester (and he dared say there were many present who, like himself, had been present at that Show), it was held in the vicinity of Hoole on a site extending to 70 acres. The prize list provided for 11 breeds of horses, 14 breeds of cattle, 17 breeds of sheep and 6 breeds of pigs. Entries numbered 2,059. On that occasion the attendance was 115,908, and the Society added a sum of £2,404 to its account as a result of the Show.

Now in the magnificent showyard of nearly 150 acres they saw to-day, as the result of the Society's continued labours for the improvement of live stock and the help of the farmer and breeder, some 16 breeds of horses, 22 breeds of cattle, 25 breeds of sheep and 12 breeds of pigs, with a total entry of approximately 4,000, excluding poultry and small live stock.

In 1858 the total amount offered for prizes was about £1,800. In 1893 the total amount offered for prizes was £6,393. This year no less a sum than £16,411 was offered, the Society's contribution having as usual been generously augmented by the Local Committee, Breed Societies and others interested.

At the previous Chester Show Cheshire cheese was, of course, a prominent feature, and this year 295 entries had been made. Here, again, the prize fund had been increased by donations from the Local Committee and the Cheshire Cheese Federation, while two valuable gold cups had been presented by members of the Cheshire Hunt. The Cheshire Agricultural Society had, in accordance with the usual custom, withheld its county show this year, and its members had received the same privileges for the year as the members of the Royal Agricultural Society of England.

This visit of His Majesty the King on the previous day roused the enthusiasm of all who attended the show, and would contribute in a very great measure to its success. They had also received visits from many distinguished foreign and colonial agriculturists. Many of these farmed vast areas of land in the colonies, and were great breeders and importers of pedigree stock. He knew they would go away with an excellent impression of that great Show, which they would carry back to their own countries and talk about for a very long time to come.

They had also received a party of sixty South African farmers, who had expressed to him personally their great admiration of all they had seen.

He could not resume his seat without personally expressing his thanks to His Worship the Mayor of Chester, the Town Clerk, and Major Denton Clark for all the hard work they had put in for more than twelve months, which had contributed so largely in evolving their great Exhibition of all that was best in English agriculture. (Applause)

Cups for Cheshire Cheese.

The PRESIDENT then called upon the High Sheriff of Cheshire (Major Robert Barbour) to present the two cups offered by the subscribers to the Cheshire Hunt for competition in the Cheshire cheese section.

Major BARBOUR said that, in the absence of Mr. Midwood, Master of the Hunt, he was very proud to be allowed to do this. He thanked the President and Council of the Royal Agricultural Society for allowing the presentation to take place at their annual meeting. The cup given in the competition for cheese made, owned and exhibited by any occupier of land exceeding 150 acres had been won by a very good friend of Cheshire cheese making and Cheshire hunting, Mr. Charles Parton, of Haughton, Tarporley. Mr. Parton had been "up against" tremendous opposition in the cheese tent, but the subscribers to that cup were particularly glad that it had gone to a farmer who helped hunting, and was surrounded by a good number of farmers who helped to give the Cheshire hounds some of their best runs. (Hear, hear) The subscribers would have liked every farmer to have shared in the prize, because they did appreciate the support which the farmers gave them. The runner-up in the same section was Mr. Hesketh, of Cholmondeston, Winsford, another very good friend of Cheshire hunting. The King had accepted Mr. Parton's cheese, which had been presented to His Majesty by Mr. Rowe Morris the previous day. He (the speaker) heard Mr. and Mrs. Parton explaining to His Majesty how they had made the cheese and been so successful. In 1858 the champion cheese was given to Queen Victoria, and made by a farmer, Mr. Willis, of Ridley—who had lived very near to Mr. Parton's farm.

In presenting the Cup to Mr. and Mrs. Parton, who received it amid applause, Major BARBOUR said: "May I, as Chairman of the Cheshire Dairy Farmers' Association, ask Mr. Parton to try to console some of the disappointment of his opponents through the cup at my expense?"

The Champion Cup for cheese made, owned and exhibited by any occupier of land of 80 acres or under had been won, continued Major BARBOUR, by Mr A P Sadler, son of a very good friend of the Cheshire dairying interest, Mr James Sadler. The runner up was Mr West.

Mayor and Corporation Thanked.

Lieut Col H F D DISBROWE WISE, in moving "That the best thanks of the Society are due and are hereby tendered to the Mayor and Corporation of Chester for their cordial reception of the Society," said that, having been privileged to accept the Mayor's lavish hospitality the previous night, he was now privileged, on behalf of the Royal Agricultural Society of England, to propose a very hearty vote of thanks to the Mayor and Corporation of Chester for making that Show the success it was. There was no doubt that it was an unqualified success (Applause). In his humble judgment three things had gone towards making the Show a success. The first was the visit of H M the King on the previous day. Chester was proverbial for its loyalty, and if any proof were wanted it was shown by the affectionate and loyal reception accorded to His Majesty by the citizens of Chester. The second was the kindness of that "fickle goddess" the weather. Many of them wanted rain, but not that week. And the third thing was the strenuous effort the "spade work" put in by the Mayor and Corporation of Chester to help forward the great agricultural interests of this country (Applause). They were very deeply indebted to the Mayor for what he had done, and hoped there might not be an interval of thirty years before the Society was again invited to come to Chester. They hoped, too, that the next would be as good a Show, with an equally fine site as the present showyard, which the view of the Welsh mountains made so picturesque (Applause).

Lt Col STANYFORTH, in seconding the resolution, endorsed every word of the proposer. He wished to say two or three words which he was afraid he forgot to say on the previous evening. He desired to draw attention to the fact that the Chester Corporation Electricity Committee had got an exhibit in the showyard demonstrating the use and application of electricity for agricultural and domestic purposes. He wanted to let everybody know that they were much indebted to that Committee for providing electric power free to the stands in the showyard. It was extremely kind and liberal on their part (Applause). The Electricity Committee were taking up rather a big venture with regard to supplying a large district round Chester with electricity at a low cost. It would be a great boon to farmers and others for driving machinery and lighting purposes if they availed themselves of the opportunity now offered to them by the Electricity Committee of the Corporation of Chester.

The vote of thanks to the Mayor and Corporation was heartily accorded.

The MAYOR OF CHESTER, in reply, thanked Col Disbrowe Wise and Col Stanyforth for the very kind terms in which they had spoken of the efforts of the Corporation to make the show a success. It had been a great pleasure, but the pleasure had been overshadowed, in his opinion, by the great honour conferred on the city by the visit of the Royal Agricultural Society of England. In an old fashioned way he replied "If you are satisfied, we are gratified, if you are gratified, we are satisfied" (Applause).

Thanks to Local Committee.

Mr WILLIAM HARRISON said he had the honour to propose —

That the best thanks of the Society are due, and are hereby tendered to the Chester Local Committee for their exertions to promote the success of the Show.

Their President, Sir Gilbert Greenall, was also Chairman of the Executive of the Local Committee, and, while they all appreciated, he was sure, the efforts of the Local Committee, he thought that Cheshire itself had

made up its mind, knowing Sir Gilbert was to be President for the year, to assist him as Chairman of the Executive of the Chester Local Committee. The amount of work that had to be done in order to get together funds to make the show a success was apparent to everyone.

There would be no doubt of the efforts of the Chester Local Committee. They were evidenced by the generous prize list that the Society were able to offer this year. It was not out of place, he thought, to say that the ex Mayor (Mr Alderman Cockrill) had done a great deal of spade work during his Mayoralty in connection with the efforts of the Local Committee. It was the luck of the game that generally the ex Mayor did a great deal of the work, and the present Mayor got a great deal of the glamour. He hoped Mr Alderman Hewitt would not mind his saying that. They all appreciated what had been done by the ex Mayor in the year before the show took place, and they tendered their thanks to Mr Cockrill.

The Rev C H BROCKLEBANK had great pleasure in seconding the resolution so ably moved by Mr Harrison. He knew something of the work of a local committee, having served on one himself. In all modesty he would like to say that the Chester Local Committee had done their part very well.

The resolution was passed unanimously.

Alderman COCKRILL, in replying, said the Local Committee were very pleased with the results of their labours. Last year they were plodding over that ground in top boots, and could scarcely keep their feet in them. They were very pleased that their work had been so successful. No city could have had a more loyal committee or a committee more interested in that great Society, and, on their behalf, he asked the meeting to accept their thanks for the resolution passed that day.

Railways Thanked

SIR MERRIK R BURRILL moved

That the best thanks of the Society are due and are hereby tendered to the railway companies for the facilities afforded by them in connection with the Show.

It was quite obvious that without the co operation of the railways it would be impossible to collect together and disperse the enormous weight of implements for a show of that kind, let alone the vast numbers of live stock and other exhibits. They all knew that the railways were passing through very great difficulties, financial and otherwise, and the Society were extremely grateful to the companies for having granted cheaper fares for members visiting the show. A good many people, he thought, had the idea that when the Show was held it brought a great advantage to the railway companies in a financial sense. He had, however, been told that very often that was not so. The companies were put to an enormous amount of trouble, special arrangements were necessary, the work involved much shifting of staff. And at the end often there was very little profit.

Mr ERNEST MATHEWS, in seconding the motion, said that after what had fallen from Sir Merrik Burrell there remained little for him to say. He did hope that the facilities afforded by the railways in giving members reduced fares would again be granted in connection with the Society's Show to take place next year at Reading.

The resolution was unanimously passed.

Members' Suggestions.

In reply to the usual inquiry from the chair as to whether any Governor or Member had any remark to make or suggestion to offer for the Council's consideration.

A MEMBER begged to suggest that at the next Show special arrangements be made so that all exhibits entered for the Society's Silver Medal for "new implements" should be shown together, in order that mem-

bers of a mechanical turn of mind might have the opportunity of seeing them without travelling some eight or nine miles round the stands. He might say that every exhibitor to whom he had mentioned the proposal had heartily approved of it. He hoped, therefore, it would commend itself to the Council.

The PRESIDENT promised that the suggestion should receive consideration.

Thanks to President.

Alderman JAMES WATT (Carlisle), as one who had been referred to in the Press as the oldest exhibitor at the Show, claimed the privilege of proposing the heartiest vote of thanks to the President for his great services to the Society. It was seldom that an institution like that had at its head such an organiser as Sir Gilbert Greenall had been, so courteous, tactful and energetic. He (Mr Watt) did not remember in all his years any other Honorary Director who had had the honour of being President once, certainly not twice. He prayed that Sir Gilbert would not be allowed to retire, for there was much more for their Society to do in the future than in the past, great as had been its achievements.

We had a Government in power which was very kind to the working man. It preferred to offer him a little gratuity weekly rather than he should do a day's work. That must come to an end before long, and the only way he could see was that as 200,000 acres of land in this country were in need of draining they should transfer the dole men to that job. They would thus provide them with work and encourage their boys to learn a trade, which they were not doing now, when their only job was to qualify for the dole. The governing body must be backed by the people themselves. There was no institution in Europe equal to the Royal Agricultural Society for power and influence, and he called upon Sir Gilbert and the Council to deal with that question as strongly and quickly as they possibly could. They might then have a larger number of acres of arable land to employ the people (Hear, hear). So long as they had the land lying derelict there were prospects of the stately homes of England becoming derelict unless a change of management in the country took place. It was to the landowners in the past that the agriculture of the country was indebted, and now the democratic class of people were driving them off the face of the earth. That day would be a serious one for the country when it happened. The responsibility rested upon the Society, for no agricultural institution had the same power and influence, and there was no better organiser than Sir Gilbert. 'May I ask you,' added Mr Watt, 'to put your back into this question and help the country?'

In conclusion, he offered the President the thanks of 15,000 members and a whole host of exhibitors, many of whom had requested him to propose that vote of thanks, and to ask Sir Gilbert to continue in office for at least another ten years.

The resolution, having been seconded by Mr JONAS, was put to the meeting and enthusiastically carried.

SIR GILBERT GREENALL thanked the meeting most sincerely for the very enthusiastic way in which they had passed that resolution. He thanked Alderman Watt and Mr Jonas for the very kind things they had said, and expressed to the members present his great appreciation at being made their President for the second time. He had done all he could during the years he had been Honorary Director to push forward the interests of the Society and make the Show what it ought to be—the greatest show in the country. He thought they would all agree that the Show in the last twenty years had improved, and things were very different from what they were in the early days when the Show went to Derby. He had had the loyal support of everybody on the Council. When the

Society in 1906 went back to the country everyone—including those who were in favour of the permanent showyard—made up his mind to make the Show a success. It would be impossible for any one man to run the Show, and he had been fortunate in having the co-operation of an excellent body of stewards, some of whom had acted ever since the 1906 Show at Derby.

Regarding the future, Sir Gilbert said if any younger man came along—he himself was nearly sixty, though he might not look it—he would be ready to give up the Honorary Directorship (Cries of “No, no”) But as long as he was able and the Society so desired he would be quite happy to continue to do his best for them.

He was afraid the task Mr Watt had put before him was rather a large one. It would, he thought, take a better man than he to reform the country. He agreed with Mr Watt that a great many people who called themselves working men did not work as hard as those who were not so called.

It was a difficult thing, owing to the dole, to get men back to work. As far as he could see, the only thing some of them thought of was drawing the dole and riding about in charabancs. The dole system would have to come to an end and the sooner that happened the better it would be for the country.

Once again he thanked the members for their kindness and courtesy to him, not only that day, but on every occasion when they met together.

WEDNESDAY, JULY 29, 1925.

SIR GILBERT GREENALL, Bart, CVO (President) on the Chair
The SECRETARY read the following letter

BUCKINGHAM PALACE

July 9

DEAR SIR GILBERT—The King wishes me to let you know how much he enjoyed his day at the Royal Agricultural Society Show yesterday and to thank you for all the trouble taken by you to make the visit a success. His Majesty congratulates you on the excellence of all your arrangements throughout the day.

The King was glad to be able to attend the Show during the year of your Presidency, and hopes that the attendances during the week will be all that you desire.

Yours sincerely,

(Signed) A. H. L. HARDINGE

Seven new Governors and 310 new Members were elected.

Mr ADEANE, in presenting the Report of the FINANCIAL Committee, which was received and adopted, said he was afraid that he had no information to give the Council with regard to the result of the Show at Chester. If there was a profit it was a very small one, and he hoped, if there was a loss, that also would be a very small one.

It was resolved, on the motion of Mr ADEANE—

‘That, in order to facilitate the winding up of the accounts for the Chester Show as early as possible, authority be given for the issue during the recess of orders on the Society’s Bankers for the payment of accounts connected with the Show.’

Colonel CORNWALLIS, in presenting the Report of the JOURNAL AND EDUCATION Committee, said that the position with regard to the National Diploma Examination came before the Committee for discussion on the previous day. The decision in the matter, if any change was hereafter contemplated, rested, as the members of the Council knew, with the Joint Board of the Royal and the Highland Societies. It would, therefore, be premature to bring forward any recommendation to the Council at the present time. If material changes were later on contemplated they would be reported to the Council in due course.

The Report of the JUDGES SELECTION Committee, containing a report from the Sub Committee on the question of the continuance or otherwise

of the system of appointing Assistant Judges, was presented. Expressions of opinion had been given in Committee, both in favour of and against the continuance of the system. Eventually it had been decided by the Committee to submit the Report in full to the Council, and take a vote of the Members present upon the two alternative systems mentioned in the report.

The PRESIDENT said that he did not intend to try to influence the decision of the Council, and he was quite prepared to take a vote for the purpose of deciding which system should be adopted, as he considered that it would be a pity to divide the Council very seriously on the matter. He thought that if he put the proposal to adopt the Single Judge system it would go through. He wanted it to be very clearly understood that the Assistant Judge system had not in the least failed at Chester. There had been no complaints. Not a single judge could say that it had failed. One or two judges had said that they preferred the other system, but nobody said that the Assistant Judge system adopted at Chester was a failure. However, if it was not generally liked, the best thing, he thought, would be to revert to the Single Judge system. He felt that that was the only possible way out of the difficulty. It would be seen that the Committee recommended that in the larger sections there should be two judges, so as not to overtax the judges. The Committee would decide, later on, which sections they considered required two judges. He thought that if he put the Single Judge system as an amendment to the present system it would go through unanimously.

A show of hands was taken, and it was agreed by 23 votes to 4 that the Single Judge system should be adopted.

The PRESIDENT said that he had every sympathy with the minority; but he thought that it was wiser to have the Single Judge system if there was any deep feeling on the matter.

In presenting the Report of the IMPLEMENT Committee, Colonel STANYFORTH said he was afraid that he would have to ask the Council to consider one clause that rather involved a principle. Members would hear, when the report of the Committee of Selection and General Purposes was read, that the date of the Reading Show had been fixed for the same week as that during which the Show was held at Chester this year. The members were aware that the date this year and the date next year were an alteration of the Society's usual dates. As the report of the Implement Committee stated, the feelings of implement makers were very strong with regard to the change of date, inasmuch as the Highland Society's Show was always in the third week in July. That meant, of course, that there were practically only about two days for the implement makers to remove their implements from one show to the other. A very great number of implement makers wished to show at the Highland Show as well as at the Royal, and it was said that the present arrangement as to dates made it practically impossible for them to do so. It meant very much more expense to them, because they would have to have duplicates of the machinery they were showing. It also involved very great inconvenience to them. They hoped that the Council would be able to fix permanently the date of the Royal Show.

Mr AVELING having put the case on behalf of his colleagues, the Agricultural Engineers, the PRESIDENT said he quite agreed that the Society ought to fix the date of the Show as far as possible, but, if the date was fixed as suggested, the Society would find some day when it went to some town that it would have to alter it. Those who knew the difficulty of getting places to take the Show would realise that when a town said that it was impossible to have the Show in a certain week, it was not possible to go there in that week. Newcastle would not have the Show during the Gosforth Park meeting. Cambridge would not have the Show during Newmarket week. Nine times out of ten it would be found that the week

fixed for this year was an open week. It would not be possible to revert to the old week for Roading, because that would involve clashing with Henley. Whatever time was satisfactory, it would be found that it was impossible to adhere to it invariably. It was very difficult to get a place to take the Show, and it was necessary to fall in with local arrangements. He considered that by far the best was the week fixed for the Chester Show. It made absolutely no difference to him personally, and he had no feeling in the matter. He thought that it was the freest week of the two from an agricultural point of view.

After some further discussion, the Secretary was instructed to communicate with the Highland Society as to the dates fixed for next year's Show. The question of fixing permanently the dates of future shows was deferred.

The Report of the COMMITTEE OF SELECTION AND GENERAL PURPOSES was received and adopted, including a recommendation that Lt.-Col. E. W. Stanforth be elected a trustee, and Mr. William Harrison a Vice-President.

The RESEARCH Committee's Report having been presented, Lord BLEDISLOE said that there was a conversation at the meeting of the Committee on the previous day in reference to the proposed future scope of the work of the Committee, and particularly as to whether it would be advisable for the Committee to turn its attention to the collation of the up to date research work of the different research stations, and the dissemination in popular and intelligible language of the more valuable results of such research work to farmers throughout the country. If he might be allowed to say so, the Ministry of Agriculture recognised the very valuable work which the Society was doing in the matter of research and experiment, particularly in the matter of carrying out field experiments by way of confirmation and demonstration of the more limited experiments which were carried out at the research stations. The other work which was now contemplated was work which, in fact, to be quite frank, was not being sufficiently carried out at the present time, and which was intended to be, at one time at any rate, part of the work of the Ministry. He wanted to suggest on behalf of the Ministry that it might be advisable, if the Research Committee, or any committee appointed from their number, or any committee that the Council chose to appoint instead, conferred with the Ministry on the subject, in order, if possible, to avoid overlapping, and in order, if possible, to agree with the Ministry what was the most useful scope of work in that connection that the Society could carry out. He, personally, held rather strong views on the subject. He would like to see the respective spheres of the Ministry and the Royal Agricultural Society, the premier agricultural society of England, so delimited as to enable the Society to carry through this most valuable work without interference from the Ministry of Agriculture in the future, whoever might be those who for the time being were serving that Department. He might incidentally mention, as he had had occasion to mention to Sir Daniel Hall that morning, that a great deal of the value of the scientific work which was passing from the Danish Ministry of Agriculture to Danish farmers, and of which so much was heard, was due to the fact that the Danish Agricultural Society, which resembled in Denmark the Royal Agricultural Society in this country, was in fact the channel for the communication and interpretation of the work of the State research stations for the benefit of the farmers. It might be useful to appoint some committee, or to appoint the Research Committee, to confer with the Ministry of Agriculture on the matter with a view to avoiding overlapping and to strengthen the hands of the Society in respect of research and experimental work.

Mr. ADEANE said that he had no right to speak for the Research Committee, and he very much regretted that Sir Merrick Burrell was not present.

at the Council meeting. Unfortunately, the Finance Committee sat at exactly the same hour as the Research Committee, and he was able to attend only the end of the meeting of the Research Committee, and therefore it was a little difficult for him to follow the proceedings. But he was quite sure that the Research Committee would welcome a conference with the Ministry of Agriculture on the question. He would like to move that the Sub Committee, which had already been appointed to go into the matter of collating research work, the sub-committee of the Research Committee, which consisted of Sir Merrik Burrell, Lord Bledisloe, Mr. Dampier Whetham and Mr. Orwin, be asked to confer with the Ministry.

Lord BLEDISLOE asked that his name might be omitted.

Mr ADEANE then proposed that the name of Mr Evens should be substituted for that of Lord Bledisloe.

The motion was carried and the Report was adopted.

On the motion of the PRESIDENT, the Seal of the Society was affixed to a transfer form for the purchase of £317 5s 2d. Metropolitan Water Board 3 per cent Stock in connection with the Gilbey Bequest

WEDNESDAY, NOVEMBER 4, 1925.

Sir GILBERT GREENALL, Bart, C V O (President), in the Chair

Seventeen new Members were elected.

Mr. ADEANE, in presenting the Report of the FINANCE Committee, said that the only thing of importance in it was the report of the sub-committee which was appointed by the Council on July 29 to consider the question of the appointment of professional accountants and also the whole of the administration of the office. He thought that the recommendations made by the Finance Committee had been very fully dealt with in the report which had just been read. The work of the Society had increased enormously in every direction during the last ten years, and it was undoubtedly necessary that the staff should be increased. The accountants' and auditors' work had also increased, and he was afraid that their work would cost the Society more in the future. He considered that altogether in a full year the increased expenditure under that head would be about £800. With regard to paragraph 5 of the report, the profit on the show at Chester would, he thought, amount to about £350.

In presenting a Report from the ORCHARDS AND FRUIT PLANTATIONS Committee—which was adopted—Colonel WHEELER said that the Federation of British Growers, who had been co-operating with the Society for the last four years in running the competitions, had now been amalgamated with the National Farmers' Union. The members of the Orchards and Fruit Plantations Committee hoped that the Farmers' Union, through its Fruit and Vegetable Committee, would continue to render the same help as the Federation of British Growers had rendered hitherto.

In moving the adoption of the Report of the VETERINARY Committee, the EARL OF NORTHBROOK said that there were two matters upon which he wished to say a few words. The first was on the question of the new Draft Order dealing with Sheep Scab. He fancied that most of the members of the Council were acquainted with the provisions of that Draft Order, because an explanatory letter had been circulated to all Local Authorities throughout the country for their observations, and it had also been sent to agricultural societies. Briefly, the reason for the introduction of the Order was that the Ministry admitted the failure of the Order of 1923. That Order embodied a principle that had the support of a considerable number of members of the Council, namely, the placing upon sheep-owners of the onus of taking all reasonable steps to keep their sheep free from scab. No doubt that principle was a very excellent one. The observation of the Ministry in its explanatory letter was that it had not been found

practicable to enforce the Order effectively. It was upon that ground that it was now proposed to revoke the Order and to substitute the provisions of the new Draft Order that had been circulated. One of the main features of the new Order was that there was to be a general dipping of sheep throughout the whole country during a period of six weeks towards the end of the year. The date suggested by the Draft Order was from July 15 to August 31. During that period no sheep could be moved from one geographical county to another unless accompanied by a certificate that they had been double-dipped. During the rest of the year the country would be free from all restrictions as to dipping and as to movement. There was also a provision in the Draft Order which would enable local authorities, subject to report to the Ministry, to exempt from double-dipping sheep that were intended for exhibition. Any county that had for two years been free from sheep scab would be exempted from the double-dipping Order. It was proposed that the new Order should come into operation on April 1, 1926. Judging from the Report of Sir John McFadyen, which had been read, the present position in regard to sheep scab in this country was exceedingly unsatisfactory. In spite of the efforts that had been made during the past five or six years to deal with it, there had been rather more outbreaks during the present year than there were last year. What was more alarming was the very wide prevalence of the disease. There had been thirty-nine outbreaks, and there were no less than eighteen or nineteen counties in which the disease existed. The Society had so often pressed the Ministry to take steps to eradicate sheep scab, and had so often urged the possibility of its being eradicated by means of more stringent Orders, that he hoped members would welcome the present serious attempt on the part of the Ministry to adopt more energetic methods. The Order had been very carefully considered and discussed by the Committee. Minor criticisms had been made on one or two points. One point made was that the period suggested by the Ministry, namely, the period from July 15 to August 31, was not a very convenient one in many districts. But it was not possible to fix a period of six weeks which would suit flock-owners throughout the whole country, because conditions varied so much. The Committee thought that on the whole it was better not to take the responsibility of recommending an alteration in the date, and that the best course to adopt was not to make any minor criticisms, but to accept the general principles of the Order and give it a fair chance and see what effect it had. The Ministry pointed out in its explanatory letter which accompanied the Order that, as members knew from their past experience, whether the new policy would succeed or not depended entirely on whether it was possible to get the Local Authorities to enforce it effectively. As the Society had pointed out to the Ministry on several occasions, the real reason why the Orders made by the Ministry had not been effective was that in certain hill districts, such as Wales and Derbyshire, the difficulties were extremely great. Still the Local Authorities had not taken adequate steps to enforce the Orders, and when the Orders had been broken magistrates had exercised extreme leniency in dealing with the culprits. Unless great activity was shown by the Local Authorities in enforcing the Order, agriculturists, he was afraid, could not hope for the success of it. The conclusion which the Committee had arrived at was that the best course that it could take was to advise the Council to express its approval of the Order as it now stood.

The other matter to which he wished to refer was the question of foot-and-mouth disease. Of course it was a very great disappointment to see the recrudescence of that disease in this country. The Minister of Agriculture, speaking at the Council of Agriculture a short time ago, referred to the matter. There was one point which he emphasised. He (Lord Northbrook) would like to call the attention of the Council to it, in the hope that in consequence it would receive greater publicity. Mr. Wood said that,

while he did not think, as far as his advice went, the situation was one in which they were called upon to be alarmists, it was undoubtedly grave, and he wished to emphasise the imperative necessity on the part of farmers of quick reporting. The organisation of the Ministry was much in the position of a fire brigade: they could not begin operating until they received the signal. If the signal was promptly given the fire could be suppressed; but if it was held up it could be suppressed only with great difficulty and damage, and there were still farmers who delayed in reporting. When the inspectors of the Ministry were tracing animals from an infected market during the past fortnight they found infected animals on farms which were visited, the owners of which had been very slow indeed to report suspicious symptoms, and he asked for the co-operation of the farmer in reporting suspicious cases. The real danger of the matter was in the markets. He (Lord Northbrook) thought that that was perfectly true. There was very good reason for thinking that a recent outbreak in one of the localities in which outbreaks had taken place was entirely due to animals which the inspectors found had been on the farm for a very considerable period after they were infected with the disease. He was sorry to say that it had been known to be the fact that when an owner had found symptoms or had been suspicious as to the health of his cattle he had taken the precaution of getting rid of them by sending them to the local market and so getting them distributed over the country.

Mr. ALFRED MANSELL said that he would like to move a resolution to the effect:—

"That the Council should urge upon the Ministry of Agriculture the desirability of taking effective steps to prevent goods coming into this country packed in hay and straw."

He was told that that would be impossible; but he thought that nothing in this world was impossible. Considering the great amount which this country had at stake, he did not see why it should not do as Canada did and insist that if goods come here they should come in wood-wool or in some preparation of paper. He believed that the Ministry had recommended that hay and straw packing should be burnt; but he knew that it was not burnt. He saw some stuff being unloaded in his own town only the other day. A farmer's cart came along and picked up the straw and took it away into the country. What more fruitful source for the introduction of foot-and-mouth disease could there be? The Continent was simply rife with the disease. He had not spoken to Lord Northbrook on the subject; but he hoped that the Council would accept the resolution.

Mr. CHRISTOPHER MIDDLETON seconded the resolution. He wondered whether Mr. Mansell would expand the resolution and ask for the prohibition of the sale by auction in local cattle markets of all imported fruit and other trees. He thought that there was a very great danger indeed involved in such sale, which was very common.

Mr. MANSELL agreed with the suggestion made by Mr. Middleton.

Sir MERRIK BURRELL said that Lord Northbrook had asked him to say a word on the subject. A month ago, the Advisory Committee to the Minister asked for a full report to be laid before them, setting out all the possible avenues of attack, controllable and uncontrollable, by which the disease might come, with suggestions from the Minister's veterinary staff as to how those avenues might be blocked. A memorandum had been circulated among the members of the Advisory Committee, and it would come up for discussion that afternoon. All the points that had been raised at the present meeting were naturally under consideration. The Ministry was very much alive to the desirability of dealing with those matters if means could be found. He did not think that he was revealing anything confidential in saying that the difficulty in dealing with the traffic from the Continent to this country lay chiefly in the fact that its

volume was so vast Other countries had been able to deal with straw and hay and other things, but, when the enormous amount of imports coming into this country had to be dealt with, the matter was a very much more difficult one He could assure the Council that the Ministry had the will, if effect could be given to anything in the direction suggested Whether it was worth while to pass resolutions he was prepared to leave to the Council, but he could assure the Council that the matter would receive very careful attention within the course of two or three hours

Mr R G PATTERSON said that the suggestions which had been made for preventing the importation of the disease were very valuable, but the disease existed in this country, and the question was how it was to be stopped as quickly as possible Having regard to the remarks of the Minister quoted by Lord Northbrook, he was bound to say that the danger was in the markets, and he thought that measures should be taken to deal with that danger He was convinced that a great number of the outbreaks were due to the distribution of stock which had been through an infected market He thought that the time had come when it was urgent that all markets should be closed except for the sale of fat stock, and that the movement of store stock should be allowed only under licence There had been several instances where the very strong suspicion that individuals having ailing animals on their farms had sent them to the nearest auctions had been justified It was all very well to restrict those auctions, but if cattle had to travel on the roads, dairy stock and other stock crossing those roads to their pastures were very apt to pick up the disease He was not sure that the Council would not be well advised in recommending the Ministry to consider seriously the question of closing markets Reference had been made to the importation of the disease through hay and straw packing and that sort of thing, but there was grave danger in another direction The disease might be imported by means of the bags in which potatoes came from the Continent He had had such bags on his own farm unknowingly He had not known about it till afterwards Imported potatoes had been sent to dealers in his own town, and the bags had been sent to him to load potatoes to go back to the dealers There was a very grave danger there He did not see how the importation of everything of that description could be prevented, but there was no reason at all why the Council should not pass a resolution to the effect that the most stringent steps should be taken to limit the danger in that direction as far as it was possible to do so

Mr BURKITT supported what Mr Patterson had said At the meeting of the Diseases of Animals Committee in his county the question of the danger through the materials which had been mentioned being disseminated by means of motor vehicles was brought up Newcastle was a great port for the introduction of potatoes In his own district potatoes had been sent by motor lorries and wagons, which afterwards went to the farms carrying cake, meal, and so on That was a source of infection His committee had drawn the attention of the Ministry to it

Some further discussion ensued as to the exact wording of the resolution

Lord NORTHBROOK considered what was proposed was really rather forcing an open door They know, from what Sir Merrick Burrell had said, that the Ministry had the matter very seriously under consideration They were making enquiries as to all possible sources of infection, with a view to finding the best way of making the importation of the things safe, or prohibiting them They were considering the possible prohibition of the importation of any shrubs or trees He would be very sorry to commit himself to the opinion that the hay and straw used in packing were the most fruitful sources of infection

The resolution, in the following terms, was then carried, and ordered to be sent to the Minister of Agriculture —

That this Council urges upon the Ministry of Agriculture the necessity of taking

effective steps to prevent importation into this country of goods packed in hay, straw, and other materials of a similar kind which may be a source of infection, and that they prohibit the sale of foreign fruit, forest, rose and other trees in local markets."

Mr. PATTERSON then moved and Mr. EVENS seconded a resolution to the following effect :—

"That the time has arrived when the Ministry of Agriculture should consider the question of the closing of store stock markets and the stoppage of movement of all stock except under licence."

This motion, after adverse criticism by Sir MERRIK BURRELL, the Hon. E. G. STRUTT and Mr. BURKITT, was put to the meeting, but, on a show of hands, was negatived.

In presenting the Report of the SELECTION AND GENERAL PURPOSES Committee, the Hon. CECIL PARKER said it gave him great pleasure to move that Lord Desborough be nominated as President for 1926.

Sir WILLIAM MOUNT asked to be allowed, as one of the representatives of Berkshire, to second the nomination of Lord Desborough as President for the ensuing year. He was quite sure that the counties of Berkshire, Buckinghamshire and Oxfordshire would be extremely gratified to know that in the year in which the show was to be held at Reading they would have someone so well known and respected as Lord Desborough as President. He could assure Lord Desborough, on behalf of the Local Committee, that it would give him every support and all the co-operation possible.

LORD DESBOROUGH said that he was very grateful to that very distinguished Society and to its still more distinguished Council for the very great honour that it had done him in putting forward his name as President for the next year. He could only hope that, with the great help and knowledge of the present President, and of the Secretary, who would obviously do most of the work, the Reading Show would be a very great success and would be worthy of the Society.

Sir MERRIK BURRELL, in moving the adoption of the RESEARCH Committee's Report, said that the experiments in the drying of whey were now nearing completion. The Committee considered that the small sum which it had allocated for the continuance of the work next year would be well spent, and that some really definite conclusions would be arrived at as to the best method of drying whey, both on a large scale and on a small scale. The results that had already been arrived at would no doubt have been put into more practical use before now but for the fact that just when they were arrived at the supply of whey almost entirely failed. That was due to two things, he thought. One was that the alteration in the milk prices caused very much less summer milk to be produced and more winter milk. Therefore there was not so much cheese-making in the country, and consequently there was very little whey available. The other was that one of the cheese-making areas in Cheshire was stopped entirely through its cattle being killed. The lucerne inoculation experiments were going on. Last week he saw Sir John Russell, who told him that the results in some parts of the country were most promising, and that it looked as though, through careful inoculation, areas in Great Britain that up till now had been quite incapable of growing lucerne would now be able to grow it quite successfully. There would have been better results shown if the sowing season this year had not been so difficult. Members of the Council would remember that May had nearly double the average rainfall, and that it was immediately followed by a very severe drought, which lasted for several weeks. That made the getting of a good tilth impossible. The experiments on the winter feeding of bullocks conducted in Norfolk promised, he thought, to show quite valuable results ; but it would be premature and possibly misleading to issue any results until the experiments which were to be conducted in the coming winter were complete.

The Council would remember that it voted the Research Committee £2,000 last year, and that the Committee was authorised to spend up to that amount this year, if it found it necessary. He was glad to be able to report that the Committee had been able to carry on all the experiments which it had in hand, and would be able to meet all outstanding liabilities with an outlay of about £1,000.

The Report of the Council to the Annual General Meeting of Governors and Members, to be held at the Royal Agricultural Hall, Islington, at 2.30 p. m. on Wednesday, December 9th, was prepared and ordered to be issued.

WEDNESDAY, DECEMBER 9, 1925.

SIR GILBERT GREENALL, Bart, C.V.O. (President), in the Chair.

The PRESIDENT said that since their last meeting a sad bereavement had befallen the Royal Family. It would, he knew, be the wish of all in that room that the Council should place on record their sense of sorrow for the death of Queen Alexandra, and humbly express their respectful sympathy with their Majesties the King and the Queen in the melancholy circumstance which had caused such universal sorrow. He begged to move the following resolution:—

The Council of the Royal Agricultural Society of England, on behalf of the Governors and Members of the Society, desire to express to His Majesty the King their respectful and sincere sympathy in the grievous loss which has befallen the Royal House by the passing of Her Majesty Queen Alexandra.

Members present signified their assent by rising in their places.

One new Governor and 17 new Members were elected.

Mr. ADEANE, in presenting the Report of the FINANCE Committee, dealt with the Chester Show accounts, all the details of which were in the hands of members of the Council. In the statement the corresponding figures for last year were given, so that members would be able to make a comparison. He need therefore give very few figures. The Show at Chester realised a surplus of £345, against a loss at Leicester of £5,976. There were increased receipts under the head of Entries of Live Stock of £1,302, Admissions to Showyard of £5,072, and Garage Receipts of £948. The principal increase on the other side was under the head of Prizes, which showed an increase of £1,496. The total receipts were £58,414, against an expenditure of £58,069.

He thought that it would be interesting for the members of the Council to go back twenty years to the Show at Derby, which was the first Show held after the Society left Park Royal, and to compare the figures of the Chester Show with those at Derby in 1906. At Derby the receipts amounted to £22,879. At Chester the receipts amounted to £58,414. The expenditure at Derby was £20,850, against an expenditure at Chester of £58,069. He was sure they would all agree that the Show at Chester was in every way worthy, not only of the Society, but of the county in which it was held. The thanks of the Council were very much due to the Mayor and Corporation for the hospitable manner in which they received the Society, to the Local Committee for the arrangements they made and their handsome contribution to the local fund, which he believed exceeded all records, and also to the Stewards. The thanks of the Council were especially due to Sir Gilbert Greenall, who for the second time had performed the functions of President and Honorary Director at the same time. He was sure that they were all exceedingly grateful to Sir Gilbert for performing those two functions, as he had done, with grace and ability. He had given satisfaction to all.

In presenting the Report of the VETERINARY Committee, the EARL OF NORTHBROOK made reference to the paragraph in it dealing with the communication received from the Warwickshire County Council, which

suggested that the risk of the spread of foot-and-mouth disease would be lessened by a universal regulation requiring a few days' detention of all cattle, except, of course, in the case of fat cattle for slaughter, between exposure at one market and exposure at the next. He thought it was generally agreed that in many cases foot-and-mouth disease had been disseminated through the country by dealers who had sent animals to one market and then passed them on directly to other markets in the country. The Committee, therefore, considered that it was desirable that the suggestion of the Warwickshire County Council should be brought before the Minister for consideration, and that if, as he hoped it would, the Council agreed with the Committee that it was a desirable course to take, and would express its approval of it at the present meeting, a letter should be sent that morning to the Minister of Agriculture so that the matter could be raised at the Minister's Advisory Committee when it met at four o'clock that afternoon.

The PRESIDENT said they had to welcome the following newly-elected Members of Council who were present that day for the first time—Sir Archibald Weigall, Major Robert J. Harbottle, Mr. J. Herbert Hall, Mr. Windham E. Hale and Mr. James Piper.

Sir MERRIK BURRELL, in the absence of the Duke of Devonshire, moved the adoption of the RESEARCH Committee's report. In doing so, he said that the only thing to which he need call the attention of the Council in connection with the work of the Research Committee was the fact that a very confusing situation had arisen over the growing of some of the Plumage Archer type of barley, over which the Research Committee spent a good deal of time and trouble and a certain amount of money, with a view to bringing it to the notice of members of the Society last year. In 1923 those barleys were grown at the Norfolk Agricultural Station and met with very great approval. The Committee was urged to make those barleys more generally known amongst the members of the Society. They proceeded to have them grown in all the various counties in England where barleys were successfully grown, in order to ascertain whether they could be equally well grown all over England, as well as in Norfolk. It proved to be the case that they could be grown. This year a good many people were encouraged to grow them in consequence of the Society having rather advertised them; but, when it came to selling them, the maltsters to all intents and purposes declined to buy them. That involved a complete turn round on the situation in 1923. He had been informed by a very eminent gentleman that he did not believe that the present situation need have arisen, and that it was due more to prejudice than to the fact that the barleys were not fit for malting. Whether that was so or not, he did not know; but the Committee had asked Mr. Evens to be so kind as to attend a conference at the Brewers' Institute about a month ago to see whether he could ascertain what the true facts of the case were. He, no doubt, would like to tell the Council what happened at that Conference. Mr. Evens had not been able to get any definite statement from the brewers as to why they had only been offering somewhere about 35s. to 40s. for barleys of the Plumage Archer type, whereas they had been giving up to as much as 75s. for barleys of the Chevalier type. The Committee felt that it was a matter of very great importance to barley-growers that the matter should be cleared up, and that the best possible information should be given to the members on the subject. The Research Committee, therefore, decided on the previous day to write a letter to the Brewers' Institute asking them whether they could give the Committee some real reason why there was such an extraordinary difference between the prices for the two different types of barley, seeing that the samples which they had been offered were samples in sound condition.

Mr. JOHN EVENS said that he attended the Conference at the Brewers' Hall on November 5. He came to the conclusion that it was a Conference

for brewing and malting, dealing with the chemical composition of malt, and so on, rather than dealing with the matter from the farmer's point of view. He told the Conference that the Research Committee had been conducting experiments at the Norfolk Agricultural Station with Plumage Archer and Beavon's Improved Archer barley, and that it had sent them out to nine different centres in England to be grown. It was said two years ago that that class of barley had been the salvation of Norfolk, and he believed it; but he had to confess that it had not succeeded very well in several places to which it was sent last year. He asked the Conference for an explanation, but he was sorry to say that he could not get one. At the meeting of the Research Committee on the previous day, it was decided that a letter should be written to the Secretary of the Institute of Brewing, as the Committee thought that it would then possibly get a definite reply. As he had said, the Conference seemed to him to deal more with plant breeding and experiments on barley after the breeding of different varieties than with their growth by the farmer. The Conference asked that the Society, if it undertook any further experiments with barley, would report to it.

Sir DOUGLAS NEWTON said that he would like the sanction of the President to refer to another matter which, he thought, was of some importance and substance, namely, the question of the provision of power alcohol from beet and potatoes. If he heard aright, he understood that the Research Committee had had the matter referred to them, and had decided to let the papers and the matter generally lie on the table. He did not know whether that meant the death of the matter so far as the Society was concerned, or whether any further action would be taken. He would like to suggest, with all respect to the members of the Committee and to the Council, that, if it did mean the death of the matter, they should not too hurriedly bury this new development and dispose of it too lightheartedly. There were many in that room who had travelled abroad and who had been struck, as he had recently been in Yugoslavia and other parts of Central Europe, by the great number of distilleries which were everywhere distributed throughout the country. Not only did they distil alcohol commercially and successfully all over the country by means of big distilleries costing some £20,000 to £30,000 apiece, but the peasants also had their own distilleries, which were quite small, but which were found to be most useful in using up waste fruit and potatoes. He thought that it would not be wise for the Council to dispose of the question on the advice of, perhaps, one or two people who had looked into the matter, when they could see with their own eyes the great object-lesson abroad of the successful development of that side of the industry. Certainly something was needed for the arable land of this country. While the big sugar-beet factories could draw upon the reserves which they had in the big acreages which surrounded them, there was plenty of room for distilleries in the valleys, where there was only a limited area of arable land. It would be quite uneconomical to send the sugar-beet to factories some fifty or sixty miles away. Therefore he would ask the Research Committee not to bury the question altogether, but to look at it and consider it thoroughly before it disposed of it, seeing that there was evidence elsewhere of the successful working of the industry.

The PRESIDENT said he was sure that the Research Committee would do what Sir Douglas Newton suggested.

Sir MERRIK BURRELL said that the Research Committee, at its meeting on the previous day, was very far from wishing to bury the question. The reason why it did not take any active steps in the matter was because the members, perhaps through their stupidity, failed to see quite how it concerned the Committee. If they had been asked to conduct experiments to find out which was the kind of beet which would produce the best or the most alcohol, they would have been able to see that they had

something to do with the matter. It was well known that it was possible to produce alcohol from sugar beet or potatoes or from any other vegetable matter, or even from wood. It seemed to him that it was for the Government to decide whether it was prepared to subsidise the makers of alcohol in the way proposed. He imagined that upon that subject other Government Departments might have a good deal to say. The subject was a very wide and intricate one, and the Research Committee really felt that it was outside the scope of its work. It fully realised that it might be of the greatest value to districts where only a small area of land was available for sugar-beet growing to have a distillery in its neighbourhood. He understood that it only took about 2,000 to 3,000 acres of land to keep a distillery supplied, whereas it took about 10,000 acres to keep a sugar beet factory supplied. It was not a matter of sugar beet only. All manner of things were used.

The following Standing Committees were appointed for 1926.—Finance, Journal and Education, Chemical, Botanical and Zoological, Veterinary, General Show, Stock Prizes, Judges Selection, Implement, Showyard Works, Selection and General Purposes, Dairy and Produce, Horticultural, and Research.

On the recommendation of the Committee of Selection, the present members of the various Standing Committees were (with some exceptions) reappointed to those Committees. Mr. W. Burkitt was added to the Journal and Education, and Dairy and Produce Committees; Sir Arthur Hazlerigg, Prof. W. Somerville and Mr. Dampier Whetham to the Journal and Education Committee; and Mr. T. W. Ashton to the Botanical and Zoological Committee.

On the motion of the PRESIDENT, the Seal of the Society was ordered to be affixed to the Agreement with the Corporation of Newport, Monmouthshire, relating to the Show of 1927.

Sir DOUGLAS NEWTON asked whether the Chairman could give the members any information regarding the result of the case which, he understood, was tried on the previous afternoon respecting the selling of foreign apples which were tainted with arsenic. From the British growers' point of view it was rather a serious matter that there should be imported from abroad apples which had been heavily sprayed with arsenic when they were practically fit for market. In a case tried the other day the apples when tested showed one-tenth of a grain of arsenic, quite enough to be very unpleasant if one ate two or three apples. It could not, he thought, be too widely known that the English fruit-growers did not spray apples when ripe and ready for market with poisonous arsenic. He hoped that the matter might be kept before the Council, because it was very deleterious to the interests of British fruit-growers that it should get abroad that English apples were unsafe food.

The PRESIDENT said that he had not seen any reference to the matter.

Proceedings at the Annual General Meeting of Governors and Members,

HELD AT THE ROYAL AGRICULTURAL HALL, ISLINGTON,

WEDNESDAY, DECEMBER 9, 1925.

SIR GILBERT GREENALL, BART., C.V.O. (PRESIDENT), IN THE CHAIR.

President's Opening Remarks.

The PRESIDENT, in opening the meeting, said it was with great pleasure that he presided that day at the Annual General Meeting of the governors and members of the Royal Agricultural Society of England, and it was

his duty at once to express their thanks to the Royal Agricultural Hall Company and to the Smithfield Club for the use of this Club Room for the meeting

When he was elected a year ago in that room he said he would endeavour to fill the dual role of President and Honorary Director to the utmost of his capacity, and, now that his year of office as President had ended, he trusted he had in some measure succeeded (Applause) To the members of Council, governors and ordinary members of the Society he had to express his thanks for the great support they had given to him during the year, for without that support it would have been impossible to carry on any department of the Society's work

Turning for a moment to the report of the Council to its members, which had been circulated and was, doubtless, in the hands of those present, he would just like to mention that this year the Society had been able to secure a record number of members in the history of the Society That in itself was very satisfactory, but it would not do for them to rest on their oars It only proved that in past years there had been men and women willing to become members if they were only induced to do so, and it should be a stimulus to all of them to use their efforts in future, not only to keep up the existing membership, but still further to increase it Just one word about the show at Chester It would be seen from the accounts that a small profit had been made on this Show It was an excellent one in every respect The Local Committee and officials—indeed, everyone—rendered to him the greatest possible assistance, and did all they could for its success, and the welcome accorded to the Society was of the kindest and warmest character (Hear, hear) The numbers attending the show were a little disappointing, and, as a consequence, the receipts were down Trade depression in Lancashire, and particularly in the cities of Liverpool and Manchester, was no doubt the cause of this, but, at any rate, it was pleasing to be on the right side As they knew, His Majesty the King visited the show on the second day, and, he thought, thoroughly enjoyed his visit His Majesty was kind enough to write to Sir Gilbert after the Show graciously expressing his thanks for the arrangements made and the pleasure he derived from his visit

Lord Desborough would succeed him in the Presidential Chair, and he knew he could bespeak for his Lordship the wholehearted support of the Council and members during his year of office, and trust that a year hence he would be able to say that the Show, which would be held at Reading next July, had been a most successful one Reading had not received a visit from the Society since the year 1882 The present site was a good one, not too far away from the town Reading was within easy reach of London, and, as Lord Desborough controlled the waters of the Thames, perhaps he would arrange to control the waters that help to fill that river from above, so that they were sure of a fine week for the show (Laughter)

At any rate, the Society would have carried out its duty in having the Show in the South of England, and he (Sir Gilbert) trusted the members in the Southern Counties would rally round the President and assist him in every possible way The prize schedule would be a comprehensive one, and the Breed Societies were, as usual, augmenting the Prize Fund To them the Society owed a debt of gratitude.

He need not detain the meeting longer with any *résumé* of the work of the Council, as it was set forth in the report, but he would proceed at once to the business of the meeting

Accounts.

The PRESIDENT said the balance sheet for 1924 was printed in the JOURNAL issued this year The accounts for the Chester Show were in the

hands of those present. He took it that Governors and members approved those accounts.

The report of the Council had been printed and circulated through the post to each member. The meeting would probably be willing that it should be taken as read.

Report of the Council.

Mr G P. HAWKINS (Cambridge) said that he felt it a great privilege to be allowed to move the adoption of the report. Before proceeding to do so, he would like to pay a tribute to the excellent and good work of the President of the Society. (Hear, hear.) Sir Gilbert Greenall had taken tremendous interest in agriculture, and especially in the breeding of cattle and horses. In addition, he had unselfishly given good work to the Society by acting as Honorary Director for many years.

It was his good fortune and privilege during a period of something like three years, on and off, to take some active part in the work of the Society, and also to meet Sir Gilbert from time to time. They in Cambridge conveyed to him their very sincere thanks for all that he did during the meeting in 1922. He brought to the President the greetings of the late Vice-Chancellor of the University, whom he had seen on the previous day. That might remind the President of the memorable occasion when he received a Degree, and when the University honoured itself by conferring that Degree.

Proceeding to the report, the outstanding feature, of course, was the Chester Show. The success of that Show everyone must agree was due to the unfailing efforts of Sir Gilbert Greenall. He not only acted as Honorary Director of the Show, but was Chairman of the Executive of the Local Committee, which raised something like £13,000. He (Mr. Hawkins) could speak with some knowledge of the work involved, because he had been Chairman of the Executive Committee at Cambridge, and he found it very difficult to raise even half that amount. He understood that Sir Gilbert's personality was so great that more than £10,000 was promised before the public appeal was made. He thought that that proved the great energy and the great popularity of their President in Lancashire and Cheshire.

After he had been for so many years Honorary Director of the Society, one might take it that Sir Gilbert would be pleased to retire from some of the strenuous work, and it had been said that he had some thought of doing so; but it had been whispered to him that Sir Gilbert intended to continue in the office of Honorary Director of the Society until after the Manchester Show in 1930. (Applause.) He was sure that all the members would be glad to know that. It was to be hoped that history might repeat itself, because the Royal Show in Manchester, at Trafford Park, in 1897 he thought it was, must have been a great success.

The annual show did not cover the whole of the work of that great Society. The Society gave practical help in connection with scientific knowledge to all those who cared to accept it. He would like to say at once that the work that was done in connection with the University of Cambridge, the School of Agriculture and the School of Forestry, was a very great help to agriculturists. There was also the research work that was being carried on in different parts of the country. If members would only take advantage of the work that was done both on the chemical side and on the veterinary side they would receive far more help than they realised. He spoke feelingly, because he knew something about contagious abortion. That, of course, was one of the great perils and evils to people in a small way who were trying to raise a good herd of cows for milk-producing

here was one matter in the Report which had given great pleasure in Cambridge. The Report called attention to the honour that His Majesty

the King had conferred upon one of the consulting officers of the Society, Sir Rowland Biffen. Sir Rowland took a very active part in wheat cultivation. All those who knew anything about Sir Rowland would know what a splendid man he was, and they were delighted to know that the King had honoured him.

The President had referred to the question of membership. It would gladden the heart of the Lord Lieutenant of Cambridgeshire (Mr Adeane) if the Society could manage to double its membership. It was well known in business circles that nothing but membership and nothing but combination would bring about any good results. It was to the membership of the Society that one looked to carry on and further its objects. He hoped that each member of the Society would do his best to introduce at least one other member.

He had very pleasant memories of the good work which the officials did at Cambridge and at the various shows at which he had met them. He would like to bear his testimony to their work, and he was sure that all those present would agree with him.

Mr WILLIAM GRAHAM (Ponrith) said that he had very great pleasure in seconding the resolution which had been so pleasantly and ably put before the meeting. They all recognised their great friend Sir Gilbert Greenall's energy and good work in agriculture. He was very pleased to hear him make a reference to the welcome he received in the County of Cheshire. That was not surprising. He remembered that a few years ago when he had the honour of staying with Sir Gilbert, Lady Greenall said that she came from Chester. He had no doubt that the energies and the activities of Sir Gilbert in the early days attracted the attention and the admiration of the inhabitants of Cheshire. His activities and his energies and the great work he had done for British agriculture while he had so ably presided over and regulated the organisation to which they were all so proud to belong had been most beneficent.

The President had mentioned that there had been a great increase in the membership of the Society. It was very important that the Society should be as strong and powerful as it possibly could be. He saw in front of him gentlemen whom he had known individually for many years, and some very influential gentlemen too. They had sitting amongst them in his usual modest way a gentleman who could do a very great deal for agriculture, namely, Lord Bledisloe, if he would only take his cue from the suggestions made at the Council meetings of the Royal Agricultural Society. He (Mr Graham) had been present at some of those Council meetings, and he knew the persuasive way in which Lord Bledisloe put his arguments. He had always thought that he was a little too bashful, and that he had not absolutely pushed home the views which he represented and expressed. As the Royal Agricultural Society had such an influential member he thought that the members were absolutely entitled to say a few words on various matters which they wished to have most thoroughly searched into and have present in the minds of the Ministry of Agriculture. He personally knew, unfortunately, and no doubt a great many people in that room knew, that agriculture was not at the present time in a very satisfactory position. In fact, the position of agriculture generally was far from satisfactory. He sometimes regretted that their great organisation had not a little more political power at its elbow than it had. He believed that the Charter precluded it from using its influence except in a *sub rosa* manner. He was quite certain that their future President would do all that he could in the House of Lords to assist their great industry.

Foot and mouth disease was rampant in this country. He had the honour of serving on the Departmental Committee in 1922, and he had not the very slightest doubt in saying that in the opinion of most of those who sat on that Committee the disease was imported from the Continent.

It was imported in various ways. He did not pay much attention to the birds and the wind, birds flew hither and thither, and the wind blew where it listed, but he thought that the Society should enforce upon the Government the view of agriculture in general that the disease was imported from the Continent through vegetable matter. It was not only through packing hay and straw. If one went to Covent Garden he would see great bales of cabbages and Brussels sprouts, and all sorts of things that came into this country, which were grown in countries where the disease was rampant. There were seven thousand centres in Holland alone. Those things no doubt brought into this country the germs of the disease, which spread very freely.

There was another point which needed emphasising. He believed that the outbreaks of the disease originated, generally speaking, from pigs. Pigs were fed on the offal of vegetable matter. No doubt the disease originated in the large pig breeding establishments. Those establishments were in contact with infirmaries and large Government and municipal bodies, which no doubt used foreign grown produce instead of British grown produce. Agriculturists paid their rates and their taxes. Nobody felt them more severely than they did, and yet they were mulcted in all sorts of expenditure, and had their herds and flocks exposed to virulent infection, simply because the Government had not the pluck and the courage to regulate in some way the importation of foreign vegetable matter. He hoped that the agricultural members in the House of Lords and in the House of Commons would give their attention to the question, and encourage the Government to take a much more serious view of the question. One could always encourage a person with a little coercion.

There was another question, that of sheep scab. Certain areas in England were perfectly free from that disease and certain areas had it brought into them from other areas. It was perfectly well known where it existed. He thought that there was a gentleman from Wales present. He had seen him entering the meeting. There were certain areas in Wales which were no doubt great centres of sheep scab. He was sitting next to a Scotsman, and he scarcely dared to say it, but there were some areas in Scotland also where the disease was rampant. Sheep wandered on the fells and amongst the rocks, and they rubbed themselves and scratched themselves, and did all sorts of things, and the shepherds would not collect them sufficiently often for the purpose of dipping them. If dipping took place at the centres where the disease existed, the disease would not spread throughout the country. It was very well known that every cattle truck that a scab infected sheep travelled in from the market where it had been exposed was liable to spread infection. The points which he had mentioned were points which ought to be taken to heart very seriously. Some good might be done to the country generally if the centres where sheep scab was really rampant were scheduled. If they were scheduled the whole of the rest of England would very soon be free from that pestilent disease.

He must congratulate the President and the Council and the Committees on the excellent work which they had done.

His only excuse for accepting the opportunity of seconding the resolution was that he was just about to enter upon his fiftieth year as a member of the Royal Agricultural Society. He could assure them that the fifty years that he had been a member of the Society had made him feel that he was in the aristocracy of the agricultural community of Great Britain. He thought that the Society was one which everybody should join. The members felt themselves to be in safe hands. He would like to see the Society placed in such a position that it would be able to back up British farmers rather more thoroughly than it was able to do at present. If the charter could be amended in such a way as to give the Society more power

in influencing the Government it would be a very good thing, although they did not want to find fault unduly with the present excellent Government. Anyhow, a little ginger from the Royal Agricultural Society would have an effect even on the present extraordinary Government, which was going to last for the next five years.

The report and accounts were received and adopted.

Election of President.

SIR WILLIAM MOUNT said that he had the great privilege of proposing —

That Lord Desborough, G C V O, be elected President of the Society, to hold office until the next ensuing annual general meeting.

(Loud applause)

His only excuse for having the privilege of moving the resolution was that he had the honour of being one of the representatives of Berkshire. It was a very great compliment that one of the most distinguished residents in the district should have been chosen as President of the Society for the year when the show was to be held at Reading. But it was not only because of the local associations of Lord Desborough that he was pleased to move the resolution. It was because he believed him to be eminently fitted for the high office which he had to hold. He had served his apprenticeship, if he might say so in the presence of some of the members of the Royal Counties Agricultural Society, as President of that Society. He had been a supporter of the Royal Show, and he had been distinguished in many aspects of sport, and he (the speaker) hoped that the day might be far distant when the fact that a man was a sportsman would not endear him to Englishmen. He thought that he could assure Lord Desborough that the trouble of ruling over the affairs of the Council of the Royal Agricultural Society of England would be nothing compared with what he had experienced in some of his undertakings hitherto.

Lord Desborough was following in the steps of perhaps the best and one of the most popular Presidents that the Society had ever had. Sir Gilbert Greenall would leave behind him very high traditions and a very great example, but he (Sir William) was certain that in Lord Desborough the Society would have a President who would uphold those traditions and support that example.

Mr PERCY CRUTCHLEY regarded it as a great privilege to be allowed to second the resolution. He felt justified in doing so, as he had known Lord Desborough longer than he had known any man in that room. Sir William Mount had touched upon several of the qualifications of Lord Desborough for high office, but he had not touched upon all of them. Indeed, it was not possible to touch upon all of them, because the number of his lordship's claims to distinction was quite overwhelming. He thought that they would all agree that it was most appropriate that the show next year, by the banks of the Thames, should be presided over by the ruler of the Thames. The Society had had many distinguished presidents in the past, presidents distinguished for various things, but he was confident that it would never be presided over by so amphibious a president.

The motion was carried by acclamation.

LORD DESBOROUGH said that he rose with a great deal of diffidence and with the full consciousness that he could not claim any of those high merits of which the proposer and seconder had spoken. He, at all events, agreed that he had served a certain amount of agricultural apprenticeship before he was elected as President of the Royal Agricultural Society. He began with numerous and not wholly inexpensive local societies—(laughter)—which he might say continued. (Laughter.) He had also had the honour of serving an apprenticeship in the Central and Associated Chambers of Agriculture for two years and as President also of the British Dairy Farmers' Association and of the Shorthorn Society, so he did not

come wholly unacquainted with the agricultural position. All those societies that he had mentioned had done their best to improve the position of the farmer. They had at all events prevented it from being a very great deal worse than it might have been. It was a culmination of those various offices that he should have been elected by the kindness of the members to the chair of the Royal Agricultural Society of England. England was a small country, but it had set an example throughout the whole world of what agricultural societies should be, and of what the breeders of stock of every sort and kind should aim at. Although it could not be claimed at the present time that agriculture was a very paying industry, yet agriculturists in England could point to what this country had been able to do in the past in building up the very best breeds all over the world. It had been said that agriculture was the most distributed industry in this country. He attended a debate in the House of Lords two or three days previously, and he began rather to doubt that, and he came to the conclusion that agriculture came a very bad second to betting. (Laughter.) Which was the more profitable of the two industries he was not quite sure, but as he had the fathering of the Money-lending Bill in the House of Lords he was informed, and he supposed on the best available authority, that a good deal of the moneylending was due to betting, and he came to the conclusion owing to the extraordinary prosperity of both bookmakers and moneylenders, that the betting industry was not, on the whole, such a very satisfactory one. (Laughter.)

The Society was going to meet next year at Reading, and it was going to meet under the menace, which had been too long hanging over this country, of the terrible scourge of foot and mouth disease. He certainly hoped that the Orders would have been taken off long before the date of the Reading Show. He would like to suggest that, so great was the difference of opinion with regard to what should be done to combat that fell disease, the extremely able experts who were connected with the Royal Agricultural Society should make a very plain statement setting forth the advantages and the disadvantages of slaughter, and the advantages and the disadvantages of always having foot and mouth disease in the country, and also a very plain financial statement as to what over a series of years had been the results of the two methods. He thought that if that were done the agricultural community would receive a great deal of enlightenment.

He thoroughly hoped, with both the proposer and the seconder of the resolution, that the Reading Show would be a very great success. He thought that it promised to be so. Reading was on two very good lines of railway, and the showground was a very good one, and it was far enough removed from the river. He would bear in mind the instructions which he had that day received that he had to control not only the river but also the weather. He had had some experience of both. When the river rose people wrote an enormous quantity of letters to him, and said: "You are an awful fool. Why don't you stop the floods?" He wrote back and said "You stop the rain, and I will stop the floods." He rather understood from the chairman that on the occasion of the Reading Show he would have to do both. Well, of course, it would be done, and the members need not bother any more about that. (Laughter.) There was another reason why he thought that members could look forward to the Reading Show with confidence. He did not know until quite lately that Sir Gilbert Greenall was a doctor. They all knew that he was a very great agriculturist. It was because of that that he had been made a Doctor of Common Law. (Laughter.) With the assistance of Dr. Greenall, who had, he believed, already taken a house on the spot, and who was the Honorary Director, he felt perfectly sure that the show at Reading might almost emulate Sir Gilbert's own show last year at Chester. He knew that his patriotic and local feelings would not prevent him doing his very best to make it so.

Election of Trustees.

The **PRESIDENT** announced that the following twelve Trustees had been nominated by the Council in accordance with the bye-laws :—

H R.H. the Prince of Wales, K.G., York House, S.W.1.
H.R.H. the Duke of York, K.G., White Lodge, Richmond.
C. Adeane, C.B., Babraham Hall, Cambridge.
The Duke of Bedford, K.G., Woburn Abbey, Bedfordshire.
Col. F. S. W. Cornwallis, Linton Park, Maidstone, Kent.
The Earl of Coventry, Croome Court, Severn Stoke, Worcestershire.
Percy Crutchley, Sunninghill Lodge, Ascot, Berkshire.
The Duke of Devonshire, K.G., Chataworth, Bakewell.
Sir Gilbert Greenall, Bart., C.V.O., Walton Hall, Warrington.
The Earl of Northbrook, Stratton, Micheldever, Hampshire.
The Hon. Cecil T. Parker, The Grove, Corsham, Wiltshire.
Lieut.-Col. E. W. Stanforth, C.B., Kirk Hammerton Hall, York.

On a show of hands they were declared re-elected as Trustees, to hold office until the next ensuing annual general meeting.

Election of Vice-Presidents.

The Vice-Presidents were elected in a similar manner, their names being :—

C. Coltman-Rogers, Stanage Park, Bucknell, Salop.
The Earl of Derby, K.G., Knowsley, Prescott, Lancashire.
Lord Desborough, G.C.V.O., Taplow Court, Taplow, Bucks.
R. M. Greaves, Wern, Portmadoc, North Wales.
Lord Harlech, Brogyntyn, Oswestry.
William Harrison, Albion Ironworks, Leigh, Lancs.
Ernest Mathews, C.V.O., LL.D., Elmodesham, Amersham.
The Duke of Portland, K.G., Welbeck Abbey, Worksop.
The Earl of Powis, Powis Castle, Welshpool, Mont.
Frederick Reynard, Sunderlandwick, Driffeld, Yorkshire.
The Duke of Richmond and Gordon, K.G., Goodwood, Chichester.
The Earl of Yarborough, Brocklesby Park, Habrough, Lincolnshire.

Election of Auditors.

Captain C. **BERTRAM ROLFE** then moved :—

"That the best thanks of the Society be tendered to Messrs Jonas M. Webb, Hubert J. Greenwood and Newell P. Squarey for their services as Auditors, and that they be re-elected for the ensuing year."

He was sure they all hoped that the Auditors might be able to report a large credit balance after the Roading Show next year.

This resolution was seconded by Mr. F. L. GOOCH, and adopted unanimously.

Elections to the Council.

The **PRESIDENT**, in accordance with Bye-law 153, reported the names of the following ordinary members of Council who had been elected to represent the several Divisions of the Society included in Group B, so that the meeting might "take cognizance" of their election :—

Durham : William Burkitt, Grange Hill, Bishop Auckland ; Christopher Middleton, Vane Terrace, Darlington.
Yorks (West Riding) : Lieut.-Col. George R. Lane-Fox, M.P., Bramham Park, Boston Spa, Leopold C. Paget, Middlethorpe Hall, York.
Nottingham : John Bell, The Hall, Thirsk.
Leicester : Sir Arthur Grey Hazlerigg, Bart., Noseley Hall, Leicester.
Rutland : E. Guy Fenwick, North Luffenham Hall, Stamford.
Suffolk : S. R. Sherwood, Playford, Ipswich, Fred Smith, Deben Haugh, Woodbridge.
Buckingham : B. J. Gates, Wing Park, Leighton Buzzard.
Essex : Sir Walter Gibbey, Bart., Elsenham Hall, Elsenham ; Hon. E. G. Strutt, C.H., Whitelands, Hatfield Peverel.
London : Frank P. Matthews, 27, Cavendish Square, W.1 ; F. Hamlyn Price, 7, Harley Gardens, The Boltons, S.W.10 ; Lieut.-Col. Sir Archibald Weigall, K.C.M.G., Petwood, Woodhall Spa.
Shropshire : Alfred Mansell, College Hill, Shrewsbury ; E. Craig Tanner, Eyton-on-Severn, Cross Houses.
Hereford : Sir John R. G. Cotterell, Bart., Garnons, Hereford.
South Wales : Col. C. Venables Llewelyn, Llyadnam, Newbridge-on-Wye.

Devon : Lord Mildmay of Flete, Flete, Ermington, S.O.

Wiltshire : Daniel Combes, Dinton Manor, Salisbury.

Surrey : Sir Bernard E. Greenwell, Bart., Marden Park, Woldingham.

Under Bye-law 149, Major Robert Barbour, of Bolesworth, Tattenhall, and Mr. J. Herbert Hall, of Hill House, Mobberley, Knutsford, have been elected as additional representatives on the Council for the Division of Cheshire.

To fill vacancies, Mr. Wyndham E. Hale, of Mowbreck Hall, Kirkham, and Mr. James Piper, of The Grange, Burntisland, Fifo, have been elected as representatives of the Divisions of Lancashire and Scotland respectively.

Suggestions of Governors and Members.

The PRESIDENT, having inquired if any Governor or Member had any remark to make or suggestion to offer for the consideration of the Council,

A MEMBER said that there was one simple little suggestion that he would like to put before the meeting. At the Show last year at Chester he wished to introduce two new members, and he had difficulty in finding proposal forms on the table in the Members' Pavilion for them to fill in. He thought that that was one of the little things that might easily be remedied by the responsible authorities.

The PRESIDENT thanked the member very much. He said that as a rule people became new members at the gate, because Mr. Aveling had the forms, and when anybody who wanted to be a new member came he made him a member at once, instead of making him pay at the turnstile. It was found that most people preferred that to being elected afterwards. He would make a note of the point, and he would see that next year there were some forms put upon the table.

Thanks to retiring President.

Colonel F. S. W. CORNWALLIS said that he had had a very pleasant duty entrusted to him. He was a little handicapped by the fact that every preceding speaker had taken the same subject. Nevertheless, he had the high honour now of moving that the best thanks of the members be given to their retiring President, Sir Gilbert Greenall. (Applause.) He had the honour of proposing his election in that room twelve months ago, and asking him then to fill for the second time the posts of President and Honorary Director. Most of the members had testified already that afternoon to the splendid manner in which Sir Gilbert had carried out his duties in that dual capacity.

He did not think that the success of a President's year of office was measured by the profit on the Show. It was measured very largely, in his judgment, by the way in which, in his own locality, the President rallied everybody round him and secured a great welcome for the Society. They all knew that at Chester not only the amount contributed but the warmth of the welcome were such as members had rarely experienced in their history, and that, too, at a time when the County of Cheshire was going through a very severe commercial crisis, and had suffered perhaps more than any other County of England from the ravages of foot-and-mouth disease.

One never asked a lady's age, but he happened to be President this year of the Bath and West Show, which he thought was an elder sister of the famous Royal Agricultural Society. Perhaps it was not inappropriate, therefore, that he should be present to propose a vote of thanks by the members of the Society to the retiring President.

Sir Gilbert Greenall took over his duties as Honorary Director, as nobody knew better than he (the speaker) did, in the year when the Society went to Derby after quitting Park Royal, and from that day to the present he had done more than anyone to bring the Society to a position of considerable wealth and considerable activity. The members of the Council had some very striking figures given to them that morning by Mr. Adeane,

the Chairman of their Finance Committee, who showed them that, whereas the receipts were about £20,000 at Derby, they came to-day to about £58,000, showing that the work of running the Show to-day was about two and a half times as much as it was when Sir Gilbert took the work over.

When people tried to express their very particular admiration of a man they always said that he was a "white man." He believed that Sir Gilbert Greenall claimed to be a "Large White" man. (Laughter.) At any rate, that was the way in which the members of the Council and every member of the Society regarded him. They hoped that they would have the benefit of his great weight and influence to carry the Society along for many years to come. They were all very glad to hear that, at any rate, they were secure of that until 1930.

He was quite sure that no member either of the Council or of the Society would like him to conclude his few remarks, which were quite unworthy of the subject, without saying how much they felt they owed to Lady Greenall—(cheers)—and to other members of Sir Gilbert Greenall's family and to members of his staff, who had always assisted him most loyally in the great work to which he had put his hand. They all hoped that Sir Gilbert might live long to continue that work, and they were all more grateful than any words could express for all that he had done in the past.

Mr. ERNEST MATHEWS seconded the motion. He said that he felt that it was a great honour and a great privilege to be allowed to do so. It was a privilege, and he used the word advisedly, for the reason that he had served as Steward under Sir Gilbert since the day when he took over the Directorship of the Show. As steward he had seen all the trials and the difficult work and the difficult questions which had come before Sir Gilbert, and he had admired the wonderful way in which he had got out of every difficulty. He would give just two illustrations. The first day at the Doncaster Show foot-and-mouth disease was about. There were a great many telegrams from the Board of Agriculture, as it was in those days, and he remembered distinctly being called to a Council meeting at twelve o'clock on the Sunday night before the Show opened to settle what was to be done if orders came from the Board that cattle were not to be admitted. There were very few members present at the Council meeting, because there were not very many in the Yard. At five o'clock next morning—he believed that was the time—orders came down from the Board. Everything was already planned by Sir Gilbert, and the cattle were sent back with the minimum amount of delay. The maximum amount of work was done by Sir Gilbert and his staff.

The other illustration was in connection with another show later on. The workman, if he did not get his way, was very apt to strike. Some carpenters wanted to go on strike the last week before the Show. If they had gone on strike it would have been very bad for the Show. When the matter came before a small Committee, the Committee asked Sir Gilbert to settle the strike. He went down to the Showyard and settled the strike directly. He (the speaker) thought that it was simply Sir Gilbert's charming manner and the way in which he got over all difficulties with the minimum of talk.

The motion was carried by acclamation.

SIR GILBERT GREENALL thanked the members most sincerely for once again passing a vote of thanks to him for the very little which he had done and for the not absolutely perfect way in which he had done it. He had had a great many difficult questions come before him. Really, one could only do one's best. Sometimes it did not come off; but he was rather lucky and it generally did. He thoroughly appreciated the honour which the Society did him a year ago in making him its President. He thought that although the Society did not make a great deal of money

at Chester, it had a most excellent Show. It was one of the easiest-going Shows that he remembered. There was not the least bit of trouble in the Yard from beginning to end, and he thought that everybody who went enjoyed himself. If they had given satisfaction and pleasure to everybody they had done a very great deal.

As members knew, he never could make a speech. If he was a speaker he would say a great deal more. He thanked one and all and everybody connected with the Society, especially Mr. Turner and the officials, for the very excellent way in which they had supported him. The very great success of the Show at Chester was due to them.

Royal Agricultural Society of England.

AWARDS OF PRIZES AT CHESTER, 1925.

ABBREVIATIONS.

- I., First Prize. II., Second Prize. III., Third Prize. IV., Fourth Prize.
V., Fifth Prize. R. N., Reserve Number. H. C., Highly Commended.
C., Commended.

The responsibility for the accuracy of the description or pedigree, and for the eligibility to compete of the animals entered in the following classes, rests solely with the Exhibitors.

Unless otherwise stated, each Prize Animal in the Classes for Horses, Cattle, Goats, Sheep, and Pigs, was "bred by Exhibitor."

HORSES.

Shires.

No. in
Cata-
logue.

Class 1.—Shire Stallions, born in 1922.

- 4 I. (£20, & R. N. for Champion.¹)—HORNCASTLE SHIRE HORSE SOCIETY, Horncastle, for Carlton Wyresdale 39120, bay, bred by I. Skevington, Park Farm, Bromham, Bedford; s. Wyresdale Draughtsman 34481, d. 85814 Moors Sea Breeze by Moors Kitchener 25443.
- 5 II. (£10.)—W. H. NEALK, Shustoke, Colehill, Birmingham, for Coleshill Dagger 39450, bay, bred by F. O. Bomford, Leigh Sinton, Malvern, s. Marden Dagnam 34137, d. 97454 Chirkehill Whittle Princess by Babingley Nulli Secundus 28993
- 1 III. (£5.)—WILLIAM J. CUMBER, Theale, Berks, for Frodingham Clansman 39196, brown, bred by W. and J. Broster, Dove Farm, Caverswall, Stoke-on-Trent; s. Leek Clansman 35792, d. 97898 Dove Prudence by Sussex Statesman 29924.
- 3 R. N.—R. E. EVANS, The Acres, Pulford, Wrexham, for Fosseyway Friar.
H. C.—7. C.—8

Class 2.—Shire Stallions, born in 1923.

- 9 I. (£20, & Champion.¹)—J. MORRIS BELCHER, Tibberton Manor, Newport, Salop, for Eaton Premier King 39486, brown, bred by T. E. Pleavin, Gwastad Farm, Cefn-y-Bedd; s. Eaton Peace King 36515, d. 98408 Gwastad Blossom by Robin Hood 10th 30838
- 10 II. (£10.)—JAMES FORSHAW & SONS, Carlton-on-Trent, Newark, for Coleshill Inventor 39452, brown, bred by F. D. Bowyer, Maxstoke, Colehill, s. Primley Inventor 35096, d. Draughtsman's Queen by Warton Draughtsman 27895
- 11 III. (£5.)—SIR ARTHUR NICHOLSON, Highfield Hall, Leek, for Leek Victor 39523, bay, bred by A. Colclough, Hassall Hall Farm, Sandbach, s. Pendley Footprint 37728, d. 96624 Alsager Princess Royal by Champion's Goalkeeper 30296.

Class 3.—Shire Stallions, born in 1924.

- 13 I. (£20.)—HIS MAJESTY THE KING, Sandringham, for Jovial Monk, bay; s. Monks Green Friar 35891, d. 104348 Marden Fuchsia by Champion's Goalkeeper 30296.
- 16 II. (£10.)—JAMES FORSHAW & SONS, Carlton-on-Trent, Newark, for Broadcaster, bay brown, bred by Rex Hawkins, (Tifton) Reynes, Olney, Beds; s. Monks Green Friar 35891, d. 112542 Pendley Discard by Champion's Goalkeeper 30296
- 14 III. (£5.)—J. MORRIS BELCHER, Tibberton Manor, Newport, Salop, for Tibberton Ring-leader, bay, bred by George Lockley, Summerhill Farm, Whitgrave, Stafford; s. Pendley Leader 35071, d. 95113 Ranton Heiress by Ranton Forest King 32749.

¹ Champion Gold Medal, and £5 to the Reserve, given by the Shire Horse Society for the best Stallion in Classes 1 to 3. A Prize of £5 is also given by the Shire Horse Society to the Breeder of the Champion Stallion, provided the Breeder is a Member of the Shire Horse Society, and the Dam of the animal is registered in the Shire Horse Stud Book.

Class 4.—Shire Mares, born in or before 1920, with foals at foot

- 22 I. (#20, & Champion¹)—G R C FOSTER, Anstey Hall, Trumpington, Cambridge, for 8840 Erfyl Lady Grey, grey, born in 1915 [foal by Darly Wild Wave 38149], bred by William Vaughan Hafod Llanyfyll Welshpool, s Moors Kitchener 25443, d 88451 Erfyl Lady White by Moors (lost 22594)
- 25 II (#10)—SIR BERNARD GRINWILL, BART, Marden Park, Woldingham, Surrey, for 102248 Cippenham Muriel, brown, born in 1919 [foal by Champion s Goalkeeper 30290], bred by E W Hendington, Cippenham Court, Slough, s Monks Green Friar 35801, d 92231 Cippenham Lthel by Bishingley Nulli Secundus 26993
- 26 III. (#5)—N HOCKIN, Kilkenny, Ilbury, Fairford, Glos, for 111022 Bonnie Lizzie, bay, born in 1920 [foal by Maryshall Majestic 36747], bred by J Gould, Jack Heygate Farm, Warburton, s Warburton Forester 2nd 36194, d by Danesfield Stonewall 22314
- 24 R. N.—THOMAS GREEN, The Bank, Pool Quay, Welshpool, for Molly.

Class 5.—Shire Mares, born in or after 1921, with foals at foot

- 29 I. (#20)—G R C FOSTER, Anstey Hall, Trumpington, Cambridge, for 112309 Medmenham Princess, bay, born in 1921 [foal by Withy Pitts Gay Prince 39072] bred by R H KENT, Westfield, Medmenham Marlow, s Welbeck Redlynch 36204, d 85809 Montem Princess by Tongiorth King Cole 0643
- 30 II. (#10)—JAMES GOULD Crouchley Hall Lymm Cheshire, for 112191 Lymm Graceful, bay, born in 1921 [foal by Herontye Buscot 37494], s Horning Clansman 35727, d 95151 Reddish Duchess by Duke s Don le 30385

Class 6.—Shire Colt Foals, the produce of Mares entered in Class 4 or 5²

- 33 I. (#10)—JAMES GOULD Crouchley Hall Lymm, Cheshire, for Lymm Blend, bay born March 15, s Herontye Buscot 37494, d 112191 Lymm Graceful by Horning Clansman 35727

Class 7.—Shire Filly Foals, the produce of Mares entered in Class 4 or 5²

- 37 I. (#10)—G R C FOSTER, Anstey Hall, Trumpington, Cambridge, for bay, born April 10, s Withy Pitts Gay Prince 39072, d 112309 Medmenham Princess by Welbeck Redlynch 36204
- 38 II. (#5)—JAMES GOULD Crouchley Hall Lymm Cheshire, for Lymm Sunbeam, bay, born April 25, s Mosses Forest Champion 38929, d 108889 Lymm Charm by Snowdon Menestrel 30924
- 40 III. (#3)—N HOCKIN, Kilkenny, Ilbury, Fairford, Glos, for Kilkenny Actress, bay, born April 24, s Maryshall Majestic 36747, d 111022 Bonnie Lizzie by Warburton Forester 2nd 36194
- 39 R. N.—SIR BERNARD GRINWILL, BART, Marden Park, Woldingham, Surrey

Class 8.—Shire Fillies, born in 1922.

- 45 I. (#20, & R. N. for Champion¹)—SIR ARTHUR NICHOLSON, Highfield Hall, Leek, for 115061 Pendley Selma, bay, bred by W B Evans Llanddloyrny Nantgaridig, s Moulton Nonsuch 11680 d 116263 Cotth Blossom by Amport Spark 26975
- 44 II. (#10)—THE DUKE OF DEVONSHIRE K.G., (Chatsworth) Bakewell 113887, for Chatsworth May Queen, bay, s Field-Marshal 6th 35627, d 84311 Chatsworth Marion by Lyrar Luck 4th 31447
- 48 III. (#5)—JOHN VAUGHAN, The Moors, Welshpool, for 113891 Chearsley Laurel, bay, bred by The Forns of R. Roadnight, Chearsley, Aylesbury, s Field Marshal 6th 35627, d 87889 Chearsley Bonny Lass 2nd by Friar Luck 4th 31447
- 42 R. N.—MISS MAJILLY THE KING, Sandlingham, for Joan of Arc.
H. C.—43, 40, 47

Class 9.—Shire Fillies, born in 1923.

- 54 I. (#20)—A THOMAS LOYD, Lockinge, Ardington, Wantage, for 116992 Monks Green Remembrance bay, bred by Arthur Smiles, Monks Green Stud Farm, Fetcham, s Champion s Goalkeeper 30290, d 99320 Monks Green Princess by Sundridge (coming King 33568)
- 59 II. (#10)—JOHN VAUGHAN, The Moors, Welshpool, for 116996 Moors Laura, black, s Laidon Clansman 36277, d 103318 Gleadless Forest Queen by Friar Luck 4th 31447
- 55 III. (#5)—S A MADLEY, Rodway Manor, Waters Upton, Wellington, Salop, for 117258 Rodway Countess, brown, bred by E Clothier, Batch Farm, Sutton Ditcheat, 1 verreech, Som, s Markeaton Ridgway King 36744, d 104368 Mark Queen by Harboro' Charming King 28356
- 56 IV. (#4)—JAMES MERRITT, Old Hall Stud Farm, Willaston, Birkenhead for 116595 Hadlow Duchess, dark bay; s Rokeby Clansman 36023, d 71287 kerridge Queen by Redlynch Forest King 23626
- 53 R. N.—JOHN C JACKSON, The Grange, Askern, Doncaster, for Knottingley Tranquil.
H. C.—52, 58

¹ Champion Gold Medal, and £5 to the Reserve, given by the Shire Horse Society for the best Mare or Filly in Classes 4, 5, 8, 9 and 10. A Prize of £5 is also given by the Shire Horse Society to the Breeder of the Champion Mare or Filly, provided the Breeder is a Member of the Shire Horse Society, and the Dam of the animal is registered in the Shire Horse Stud Book

² Prizes given by the Shire Horse Society

Class 10.—Shire Fillies, born in 1924

- 70 I (220)—SIR ARTHUR NICHOLSON, Highfield Hall Leek, for **Leek Diana**, brown, s Pend ley Footprint 377.8 d 104086 Leek Vanity by Champion s Clausman 29221
 68 II (210)—A THOMAS LOYD, Lockinge Ardington, Wantage, for **Lockinge Seabreeze**, bay, bred by J W Sharman, Grass Farm Spalding, s Tregondale King Cole 33603, d 75877 Seabreeze by Lockinge Black Horn 2438,
 63 III (25)—G R C FOSTER Antey Hall Trumpington, Cambridge, for **Bower Ladyship** 2nd, bay, s Colney Fair 2733, d 80920 Claypole Dray Queen by Goadby Drayman 27387
 66 IV (24)—JOHN C JACKSON The Grange, A-kern Doncaster, for **White Meadow Mavourneen**, bay bred by H S Tanburn, White Meadow, Ashbourne, s Champion's Goal keeper 30296 d 110249 The de Iris by Theale Locking 35216
 65 R N—SIR BERNARD GRIEZWELL, BART, Marden Park, Woldingham for **Marden Rhoda**.
 H C—64 C—67

Class 11.—Shire Geldings, by registered sires, born in or before 1921.

- 74 I (220¹)—MANN CROSSMAN & PAULIN LTD, Albion Brewery, Whitechapel Road, London E 1, for **Champion**, bay born in 1919, bred by N Hocken, Kilkenny, Bibury, Telford s Ansty Lord's King 28035
 77 II (210¹)—EDWARD PARRI Tyddyn y Fron Bettws, Abergelt, for **Welsh Boy**, brown, born in 1921 bred by G Griffiths, Bryn Farm Carnarvon s Golden King 2nd 3985
 76 III (25¹)—GEO G MARSH & SON Mount Pleasant Speke, Liverpool, for **Speke Darkie**, black born in 1920, bred by J and T Halhead Hornby Lancaster, s Filling Premier 334
 80 IV (24)—VICTORIA COAT CO (CARDIFF) LTD, 82, Crwys Road Cardiff for **Cymro Glan**, bay born in 1921 bred by J Lewis, Anglesey s Throeste Royal Duke 35252, d Sir by New Iron 2017
 73 R N—MANN CROSSMAN & PAULIN LTD, for **Commodore**.
 H C—71, 72 78 C—75

Class 12.—Shire Geldings, by registered sires, born in 1922¹

- 85 I (220)—GEO G MARSH & SON Mount Pleasant, Speke Liverpool for **Uncle Ben**, grey, bred by B Parrow Hawton Grange, Newark s March King 3433
 84 II (210)—MANN CROSSMAN & PAULIN LTD Albion Brewery Whitechapel Road, London, E 1 for **Albion Majestic**, bay, bred by D W Lewis, Godstone, Surrey, s Maryshall Mjestic 36747
 81 III (25)—H J LARNWORTH Rendcomb Buildings Cirencester, for **Rendcomb Ragman**, bay, s Rutcliffe King 36946 d by Rutcliffe Forest King 23622
 86 R N—WILLIAM I ROBERTS Haywood 8 Bedford Street South, Liverpool, for **Haywood Pride**
 H C—84

Clydesdales.

Class 13.—Clydesdale Stallions, born in 1922

- 89 I (220)—ALBERT JAMES MARSHALL Bridgebank Stranraer, for **Bridgebank Footman** 20877, dark brown bred by James Dickie Kilton House, Dumfries, s Dunure Footprint 1520, d Meadow Sweet 5337 by Royal Favourite 10630
 90 II (210)—A MONTGOMERY & CO, Firdulind Kirkcubright for **Precedence** 21116 bay, bred by Smith and Alton Lillingham Home Farm Cuthill, Northumberland, s Happy (holer 19741 d by Jean 51360 by Baron 1641 14585
 88 III (25)—ATBERT JAMES MARSHALL for **Bridgebank Footguard** 20875, brown bred by F Kerr Harriestoun, Dollar, s Dunure Footprint 1520, d Harriestoun Aida 50574 by Apukwa 14567

Class 14.—Clydesdale Stallions, born in 1923

- 92 I (220, & R N for Champion²)—R and J CHAPMAN, Johnston Gartcosh, for **Baron's Eclipse** 21032, brown bred by J P Skigh St John's Wells Lytle, s Dunure Footprint 15203 d Wells Nona 54072 by Hiawatha Again 18763
 93 II (210)—JAMES KILPATRICK Craigie Mains Kilmarnock, for **Craigie Exquisite** 21053, bay bred by Peter McAulay Bow Farm Greenock, s Craigie Excellence 19971, d Craigie Mermaid 55394 by Craigie Lighthouse 19071

Class 15.—Clydesdale Stallions, born in 1924

- 98 I (220, & Champion)—JAMES KILPATRICK, Craigie Mains Kilmarnock, for **Craigie Ambition**, brown bred by James Beaton Mains of Glack Pitcaple, s Bonnie Buchlyvie 14032, d Lady Print 55108 by Dunure Footprint 15203

¹ Prizes given by the Shire Horse Society

² Champion Silver Medal given by the Clydesdale Horse Society for the best Stallion classes 13 to 15

- 99 II (#10)—ALBERT JAMES MARSHALL, Bridgebank, Stianraer, for black, bred by G and R Findlater, Jerviswood Mains, Lanark, s Dunure Footprint 15203, d Nellie of Cornhills 54215 by Dandylith Quest 19082
- 101 III (#5)—ALEXANDER MURDOCH, East Hallside, Hallside, Cambuslang, by Glasgow, for Hallside, bay, s Craigue McQuaid 20724, d Ophelia 55513 by Craigue Litigant 19071.

Class 17.—Clydesdale Fillies, born in 1922.

- 104 I (#20, & Champion¹)—JAMES KILPATRICK, Craigh Mains, Kilmarnock for Craigh Ella, brown, bred by James Cairns, Abercrombie, Fife, s Craigue Litigant 19071, d Abercrombie Emma 47287 by Dunure Footprint 15203
- 105 II (#10)—W and J REITH, Kennedy Farm, Peterculter, for Dunure Real, bay bred by Robert Park, Brunstane, Portobello, s Dunure Footprint 15203, d Queenie of Brunstane 52802 by Auchencroft 12007

Class 18.—Clydesdale Fillies, born in 1923.

- 111 I (#20, & R. N. for Champion¹)—DOUGLAS D MURRAY, The Dene, Seaham Harbour, for Queen of Them All, brown, s Dunure Footprint 15203, d Seaham Ideal 53907 by Auchencroft 12007
- 108 II (#10)—ROBERT DALZIEL, Rue, Holywood, by Auldgarth, for Rue May Morn, black; s Dunure Footprint 15203, d Noss Aida 44899 by Master David 15943
- 113 III (#5)—MISS L M REITH, Kennedy Farm, Peterculter, for Irene, bay, s Lyvie Senation 20042, d Dunure Destiny 5480 by Dunure Footprint 15203
- 106 R. N.—DAVID ADAMS, Auchencraig, Dumfries, for Knockdon Gladys H. C.—109

Class 19.—Clydesdale Fillies, born in 1924

- 115 I (#20)—CHARLES AITKENHEAD, Cair House Farm, New Seaham, for Dignity, brown; s Hoid 20334, d Bonnie Jean 44472 by Revelant 11876
- 117 II (#10)—ROBERT D REITH, Rue, Holywood, by Auldgarth, for Rue May Queen, black, s Blackburn Footnote 2001, d Noss Aida 44899 by Master David 15943
- 116 III (#5)—ARCHIE BOADIE, West End Farm, Luncly, Cumberland, for Opulence, bay, bred by James Young, Greenfield, Strathaven, s Torrs Majestic 21138, d Lady Astor 55736 by Dunure Footprint 15203

Class 20.—Clydesdale Geldings, by registered sires, born in or before 1922²

- 121 I (#20)—JAMES LEMING, Barns of Claverhouse, Dundee, for Ballinger, brown, born in 1921, bred by John Bell, Tyrie Mains, Fraserburgh, s Martino 18430
- 123 II (#10)—WILLIAM KERR, Bell Mount, Farth, for Jeff, brown, born in 1921, bred by Major Dudgeon, Cargen Hill, Dumfries, s Bonnie Luchivie 14032
- 124 III (#5)—SCOTLAND CO-OPERATIVE WHOLESALE SOCIETY, LTD, 95, Morrison Street, Glasgow, for Jock, brown, born in 1921, bred by D P Elliot, Nisbet Hall, Duns, s Scotland Victor 18108
- 122 R. N.—JAMES LEMING, for Uhlyty. H. C.—119

Suffolks.

Class 21.—Suffolk Stallions, born in or before 1921³

- 126 I (#20, & Champion⁴)—HORACE W PACKARD, Overhall Shottky, Ipswich, for Hinthelham Agility 4935, born in 1919, bred by S Warth, Hinthelham, Suffolk, s Morston Connaught 4900 d Bawdsey Josephine 5428 by Cooks Napoleon 2933
- 130 II (#10, & R. N. for Champion⁴)—P C VESTER, Ixston Park, Wickham Market for Sudbourne Premier 4963, chestnut, born in 1919, bred by the late Lord Manton Sudbourne Hall, Suffolk, s Sudbourne Beau Brocade 4235, d Sudbourne Moonlight 8023 by Sudbourne Arabi 3287
- 132 III (#5)—WILLIAM WOODGATE, Falsfield, Framlingham, for Blackmore Hopeful 5206, born in 1920, bred by L H Sikes, Ingtestone, s Bawdsey Bickelman 4023, d Grange Mermaid 8995 by Sudbourne Arabi 3287
- 125 R. N.—JAMES FORREST, Tattingstone Hall, Ipswich, for Tattingstone Beau Esprit. H. C.—126

Class 22.—Suffolk Stallions, born in 1922.

- 133 I (#20)—FRANK J CULLEN, Crossing Temple, Braintree, for Crossing Crusader 5433, s Framlingham Allanby 4826, d Bawdsey Queen 9013 by Bawdsey Hay 4188
- 135 II (#10)—A F PRATT, Morston Hall, Trimky, Ipswich, for Morston Contract 5442; s Shottky Counterpart 4903, d Morston Gold Gleam 10371 by Morston Gold Guard 4234

¹ Champion Silver Medal given by the Clydesdale Horse Society for the best Mare or Filly in Classes 16 to 19

² Prizes given by the Clydesdale Horse Society

³ Prizes given by the Suffolk Horse Society

⁴ The 'Coronation' Perpetual Silver Challenge Cup, value £50, given by the Suffolk Horse Society for the best Stallion in Classes 21 to 24

Class 23.—Suffolk Stallions, born in 1923.

- 142 I (£20)—P R L SAVILL, Copsale Court, Nuthurst, Sussex, for **Bawdsey Bountiful** 5551, bred by Sir Cuthbert Quilter, Bart, Bawdsey Woodbridge, s Framlingham Allenby 4828 d Bawdsey Minerva 1449 by Bawdsey Harvester 3076
- 143 II (£10)—THOMAS H. SOCHON, Fanfield Fye West Hanningfield, Chelmsford, for **Morston Beau Brocade** 5505, bred by the Exors of the late Lord Manton Sudbourne Hall Suffolk, s Sudbourne Beau Brocade 425, d Mingo 8890 by Sudbourne Arab 3309
- 138 III (£5)—CAPTAIN C. I. FITZROY, The Lodge Farm, Coney Weston Bury St Edmunds, for **Darsham Sultan** 2nd 5592 bred by Capt R Catchpole, Darsham Hall, Suffolk, s Darsham Marchman 4905 d Darsham Sulfratette 8310 by Darsham Sheik 4139
- 140 E N—J. W. HORLOCK, Mistley House, Mistley, Essex, for **Mistley Hercules**, H C—141

Class 24.—Suffolk Stallions, born in 1924.

- 146 I (£20)—CAPTAIN C. I. FITZROY, The Lodge Farm, Coney Weston Bury St Edmunds, for **Coney Weston Satellite** 5666, s Sudbourne Arabi 3287, d Daisy 3rd 8229 by Lido Starkey 3782
- 150 II (£10)—A. T. PRATT, Morston Hall, Trimley Ipswich, for **Morston Gold King** 5643, s Morston Gold Guard 4234 d Lady Queen 7772 by Bawdsey Harvester 3076
- 149 III (£5)—A. T. PRATT, for **Morston Counter-Ring**, bred by the Exors of the late Spencer Dawson Stratton Hall Ipswich, s Shotley Counter part 4903, d Stratton Vera 6952 by Sproughton Gold Ring 3347
- 151 E N—SIR CUTHBERT QUILTER, BART, Bawdsey, Woodbridge, for **Bawdsey Ming**, H C—148 C—147

Class 25.—Suffolk Mares, with foals at foot

- 161 I (£20, & E N for Champion¹)—SIR CUTHBERT QUILTER, BART, Bawdsey Woodbridge, for **Bawdsey Porcelain** 10404 born in 1919 [foal by Framlingham Allenby 4826], s Earl Gray 4219 d Bawdsey China Doll 2nd 7252 by Bentley War (ry 3028
- 162 II (£10)—SIR CUTHBERT QUILTER, BART, for **Bawdsey Sappho** 11350, born in 1921 [foal by Framlingham Allenby 4826], s Earl Gray 4219, d Bawdsey Minerva 6449 by Bawdsey Harvester 3076
- 163 III (£5)—A. CARLYLE SMITH, Sutton Hall Woodbridge for **Ashmoor Bessie** 10367, born in 1919 [foal by Framlingham Allenby 4826], s Sudbourne Arab 3309, d Ashmoor Belle by Taylor's Majestic 327
- 164 IV (£4)—P. C. VESTY, Easton Park, Wickham Market for **Sudbourne Gem** 10872, born in 1920 [foal by Woolverstone Chickmatt 4683] bred by the Lord Manton Sudbourne Hall, Orford, s Sudbourne Beau Brocade 4235, d Diamond 9611 by Turner's Goldfinder 3011
- 157 E N—LIEUT COL W. F. HARRISON, O.F.D., Wychnor Park, Burton on Trent, for **Bawdsey Wench**, H C—150

Class 26.—Suffolk Colt Foals, the produce of Mares in Class 25²

- 168 I (£10)—SIR CUTHBERT QUILTER, BART, Bawdsey Woodbridge, for foal born Feb 15, s Framlingham Allenby 4826 d Bawdsey Porcelain 10404 by Earl Gray 4219
- 167 II (£5)—SIR CUTHBERT QUILTER, BART, for foal born Feb 1, s Framlingham Allenby 4826 d Bawdsey Harvester 3076 by Bawdsey Hay 4188
- 169 III (£3)—SIR CUTHBERT QUILTER, BART, for foal born March 18, s Framlingham Allenby 4826 d Bawdsey Sappho 11350 by Earl Gray 4219

Class 27.—Suffolk Filly Foals, the produce of Mares in Class 25²

- 174 I (£10)—A. CARLYLE SMITH, Sutton Hall Woodbridge for **Ashmoor Berry**, born Feb 19, s Framlingham Allenby 4826 d Ashmoor Bessie 10367 by Sudbourne Arab 3309
- 172 II (£5)—LIEUT COL W. F. HARRISON, O.F.D., Wychnor Park, Burton on Trent, for **Wychnor Wendy**, born March 1, s Bawdsey Wassall 5132, d Bawdsey Wench 10825 by Bawdsey Harvester 3076
- 173 III (£3)—A. PRYSTON JONES, Mickelover House, Derby, for **Mickelover Sunshine**, born March 15, s Horstead Punchinello 5096, d Sudbourne Moonlight 8623 by Sudbourne Peter 3955

Class 28.—Suffolk Fillies, born in 1922

- 180 I (£20, & Champion¹)—A. T. PRATT, Morston Hall Trimley, Ipswich, for **Morston Gold Choice** 12070, s Morston Gold Guard 4234, d Golden Lass 8614 by Rendlesham Steward 4137
- 177 II (£10)—W. J. FRYER, Holme Park Sonning, Reading, for **Sudbourne Sybil** 12146, bred by the Exors of the late Lord Manton s Sudbourne Merryman 5062, d Sudbourne Cybele 10001 by Sudbourne Beau Brocade 4235
- 181 III (£5)—A. CARLYLE SMITH, Sutton Hall Woodbridge for **Walpole Majolica** 11707, bred by Miss M. Gillett Walpole, Halesworth, s Samford Rufus 4712, d Walpole Monica 8949 by Sudbourne Arabi 3287
- 178 E N—SAXTON W. A. NOBLE, Wretham Hall Thetford, for **Wretham Fuchsia**.

¹ Champion Prize of £10 given by the Suffolk Horse Society for the best Mare or Filly in Classes 25, 28, 29 and 30

² Prizes given by the Suffolk Horse Society

Class 29.—Suffolk Fillies, born in 1923

- 187 I (220)—A CARLYLE SMITH, Sutton Hall, Woodbridge, for **Bromeswell Patricia** 12289, bred by H King, Bromeswell, Suffolk, s Sudbourne A1ab 3309, d Bromeswell Stella 10280 by Framlingham Joffres 4425
- 184 II (210)—W N L CHAMPION, Riddlesworth Hall, Thetford, for **Riddlesworth Barmad**, 12480 bred by the Executors of the late Lord Manton, Sudbourne Hall s Sudbourne Beau Brocade 4235, d Sudbourne Armada 8519 by Sudbourne Peter 3055
- 185 III (25)—SIR CUTHBERT QUILTER, BART, Bawdsey Woodbridge for **Bawdsey Hayzel** 12598, s Framlingham Allenby 4826, d Bawdsey Hayseed 9496 by Bawdsey Hay 4188
- 189 E N—A G WELCH, Worlingham, Beccles, for **Worlingham Stella**.
H C—190 C—188

Class 30.—Suffolk Fillies, born in 1924

- 199 I (220)—P C VESLEY, Easton Park, Wickham Market, for **Martley Prima Donna** s Sudbourne Premier 4963 d Ringshill Cavell 10083 by Preston Marshal 4420
- 191 II (210)—CAPTAIN C E LEECH, The Lodge Farm, Coney Weston Bury St Edmunds for **Coney Weston Arabis** 12970, s Sudbourne Atabi 1287, d Starlight 2nd 10218 by Sudbourne Peter Pan 4214
- 200 III (25)—A G WELCH, Worlingham Beccles for **Worlingham La Belle Reine** 12871, s Sudbourne Foch 4869, d La Belle Rouge 10611 by Sudbourne Beauchief 4215
- 201 IV (24)—I W WILSON & SONS LTD, Hadleigh Suffolk for **Hadleigh Juno** 12985 s Ashmoor Cornshead 5286, d Hadleigh R 10578 by Morston Wallcut 3987
- 195 E. N.—THE RT HON SIR WILLIAM JOYCE HICKS, BART, M P, 70, Queen's Gate, London, s W 7, for **Taconeston Marchioness**.
H. C—193 C—192, 196

Class 31.—Suffolk Geldings, by registered sires, born in or before 1922¹

- 206 I (220)—MRS LILLYN RICH The Grays Stud Farm Westerham Hill for **Colonel**, born in 1919, bred by Stephen Jackson Hadleigh, Suffolk, s Woolverstone Flash Cadet 4695, d Scott 6279
- 209 II (210)—P C VESLEY Easton Park Wickham Market for **Duke**, born in 1920 bred by L H Reynolds, Grove Place, Denham, s Sudbourne Peter Pan 4214, d Burton Maid 8527
- 205 III (25)—MRS EVELYN RICH, for **Captain**, born in 1920 bred by I C Burton, Grove Farm, Kessingland, s Matchless 4628, d Duntly 8469
- 204 E. N.—SIR CUTHBERT QUILTER, BART, Bawdsey, Woodbridge for **Peter**
H C—208 C—203

Percherons.**Class 32.—Percheron Stallions, born in or before 1921²**

- 210 I (220)—AUBREY W HANDS, Hycroft Sherborne, Northleach, for **River Voussoir** B 132, grey born in 1921 s Onuphre B 4, d Doris B 127 by Artimus A 73339

Class 33.—Percheron Stallions, born in 1922

- 214 I. (220, & Champion *)—HARRY R OVERMAN Brampton Ash, Market Harborough, for **Hilderstone Watteau** B 198, grey bred by H Sidbottom, Lunwades, Keston, Newmarket, s Misanthrope I 5 d Ruchee B 296 by Nicht I 117897
- 211 II. (210, & E. N. for Champion *)—THOMAS COOK, Hobland House Bradwell, Great Yarmouth, for **Hobland Dragon** B 219, grey, s Perfection B 46 d Sonorite B 343 by Ohio F 11742
- 212 III (25)—GUY FENWICK, North Luffenham Hall Stamford, for **Hobland Demon** P 218 grey bred by Thomas Cook, Hobland House, Bradwell, s Perfection B 46, d Quannuc B 57 by Lycan I 103544
- 213 E. N.—COL H L HAWBERG, C B L, Coldham Hall, Bury St Edmunds, for **Coldham Gunner**.

Class 34.—Percheron Stallions, born in 1923

- 215 I. (220, & Champion *)—STANLEY M DENNIS, Sharnden Manor, Mayfield, Sussex for **Sharnden Achille** B 233, black grey, s Lagor I. 1, d Quartette B 19 by Limon I 99810
- 216 II (210, & E. N. for Champion *)—MRS R M HARRISON, O B E, Maer Hall, Newcastle, Staffs for **Romah Gamgee** B 245, iron grey, s Misanthrope B 5, d Quolluc B 297 by Jynnales F 102760
- 217 III (25)—W E SWINERTON, Manor House, Over Whitacre, Birmingham, for **Grayling** X B 221, grey, bred by Mrs Robert Emmet, Moreton Paddocks, s Rhum B 53, d Quonjointe B 220 by Myrmidon I 109533

¹ Prizes given by the Suffolk Horse Society.² Prizes given by the British Percheron Horse Society

* Perpetual Silver Challenge Cup, value Fifty Guineas, given by the British Percheron Horse Society for the best Stallion in Classes 32 to 35

* Perpetual Silver Challenge Cup, value Fifty Guineas, given by the British Percheron Horse Society for the best stallion in Class 34 born in Great Britain

Class 35.—Percheron Stallions, born in 1924.

- 218 I (220)—CHIVERS & SONS, LTD, Histon, Cambridge, for **Histon Drayman** 3rd B 317, grey, s *Trappeur* B 140424, d *Umfiction* B 535 by *Manillon* I 110245
 210 II (210)—MAJOR J S COURTAULD, M C, M P Burton Park, Petworth Sussex for **Burton Yeoman** B 308, dark grey, s *Rhum* B 53 d *Qualamite* B 5 by *Lyonnais* F 102706
 223 III (25)—CHARLES WILSON, Riseholme, Lincoln, for **Riseholme Simon** B 314, grey, s *Bargely Chieftain* B 16 d *Siamolae* B 328 by *Nihiliste* I 117694
 221 R N—Mrs ROBERT EMMET, Moreton Paddox, Moreton Morrell, Warwick, for **Greyling Countess**

Class 36.—Percheron Mares, with foals at foot

- 222 I (220, & Champion *)—MAJOR J S COURTAULD, M C, M P, Burton Park, Petworth, Sussex, for **Qualamite** B 4, light grey, born in 1916 [foal by *Quantelux* B 35] bred by M Breux, la Cour, Marnes, la Sarthe, France, s *Lyonnais* F 102760, d *Montre* F 106607 by *Iberien* F 81135
 230 II (210, & R N for Champion *)—MRS R M HARRISON O B I Maer Hall Newcastle, Staffs, for **Quitana** B 90, grey, born in 1916 [foal by *Oritho* B 22] bred by M Chopin, Chemille, Mortagne, France, s *Lagor* F 100512, d *Mazurka* I 105941 by *Huchoir* I 77700
 225 III (25)—CHIVERS & SONS LTD, Histon Cambridge, for **Ogive** B 49C grey, born in 1914 [foal by *Lagor* B 1] bred by M P Chalopin la Garune, Koullec, France, s *Instar* F 79857, d *Pascaline* I 600.0 by *Glacil* I 44084
 226 IV (24)—CHIVERS & SONS, LTD, for **Petronne** B 171, grey born in 1915 [foal by *Villabon* B 276] bred by M L'ouvié la Reiniere, Mortagne, France, s *Japon* F 84810, d *Hebe* F 77119 by *Meillon* F 59997
 229 R N—GUY L'EWICK, North Luffenham Hall, Stamford, for **Sarra**.

Class 37.—Percheron Colt or Filly Foals, the produce of Mares in Class 36²

- 237 I (210)—CHIVERS & SONS LTD, Histon, Cambridge, for grey filly, born March 16, s *Villabon* B 276, d *Petronne* B 176 by *Japon* F 84910
 240 II (25)—GUY L'EWICK, North Luffenham Hall, Stamford, for grey colt, born April 7, s *Misanthrop* B 5, d *Sarra* B 26 by *Napoleon* F 114031
 241 III (23)—MRS R M HARRISON, O B I, Maer Hall Newcastle, Staffs, for black filly, born March 30, s *Oritho* B 22, d *Quitana* B 90 by *Lagor* I 100512
 239 R N—MAJOR J S COURTAULD, M C, M P Burton Park, Petworth, Sussex

Class 38.—Percheron Fillies, born in 1922.

- 248 I (220)—CHIVERS & SONS, LTD, Histon, Cambridge, for **Greyling Welcome** B 443 grey, bred by Mrs Robert Emmet, Moreton Paddox, Moreton Morrell, s *Rhum* B 53, d *Reversion* B 340 by *Noyal* F 117498
 247 II (210)—CHIVERS & SONS, LTD, for **Argenteuse** B 591, dark grey bred by M Gassein, La Martinère, Mortagne, France, s *Remords* I 133334, d *Litorne* I 100791 by *Hirold* F 74108
 250 III (25)—MRS M M L'EGRALE, Marsden Manor, Cirencester, for **Marsden Ambrosine** B 440, grey, s *Quantelux* B 35, d *Ratissoire* B 263 by *Nectane* I 112697

Class 39.—Percheron Fillies, born in 1923

- 251 I (220)—CAPTAIN ROBERT B BRASSEY, Cottesbrooke Hall, Northampton, for **Blagueuse** B 662, grey, bred by M Leprince, Villeneuve, L'Herminiere, France, s *Ides* B 126601, d *Marinette* F 105332 by *Gazoo* F 70937
 254 II (210, & Champion *)—DINAM L'ETATLS CO, Llandinam Hall Farm, Llandinam Mont, for **Dinam Founçonné** B 580, dark grey, s *Presclant* B 17, d *Sourdier* B 819 by *Nigand* B 111585
 257 III (25, & R N for Champion *)—CHARLES WILSON, Riseholme, Lincoln, for **Riseholme Siren** B 504 grey, s *Misanthrop* B 5, d *Siamolae* B 328 by *Nihiliste* I 117694
 255 R N—DINAM L'ETATLS CO, for **Dinam Quotité**

Class 40.—Percheron Fillies, born in 1924

- 250 I (220)—CHIVERS & SONS LTD, Histon, Cambridge, for **Histon Bess** B 641, grey, s *Oh* B 58, d *Perthe* B 178 by *Japon* F 84810
 261 II (210)—GUY L'EWICK, North Luffenham Hall, Stamford, for **Luffenham Lorna** B 604 grey, s *Ombrien* B 15 d *Iorene* B 138 by *Appleton* A 101534
 258 III (25)—CAPTAIN ROBERT B BRASSEY, Cottesbrooke Hall Northampton, for **Cottesbrooke Eirene** B 610 grey s *Onuphre* B 43, d *Edna* B 418 by *Lorfolk King* F 104637
 260 R N—DINAM L'ETATLS CO, Llandinam Hall Farm Llandinam, for **Dinam Savoie**

¹ Perpetual Silver Challenge (up value Fifty Guineas given by the British Percheron Horse Society for the best Mare or Filly in Classes 36, 38, 39 and 40

² Prizes given by the British Percheron Horse Society

³ Perpetual Silver Challenge (up value Fifty Guineas given by the British Percheron Horse Society for the best Filly in Class 39 born in Great Britain

Hunters.

Class 41.—*Hunter Mares, with foals at foot*

- 271 I. (#20, & Champion ¹)—WARRE & UNWIN, Longdon Hall, Tewkesbury, for *Cavalini*, bay, born in 1915 [foal by *Rochester*]
 262 II (#10, & B N for Champion ¹)—LIEUT COL SIR MERRIK R BURRILL, BART, C B E, Knepp Castle, Horsham, for 5340 *The Belle*, brown born in 1916 [foal by *The Best 147*]
s *Harover Square*, d 3014 *Surprise* by *Silver King 54*
 266 III (#5)—WALTER J IRYLE, C B E, Holme Park, Sonning, Berks, for 5847 *Larch*, bay, born in 1911 [foal by *Tantamount*], bred by Lieut Col Meysey Thompson, Knaresborough Yorks, *s* *Rick Gull 178*, d *Britannia* by *Prince Vortimer*
 269 B N—LADY LARRINGTON, Springfield, Marlow, Bucks, for *Lady B*.

Class 42.—*Hunter Colt Foals, the produce of Mares in Class 41.*

- 275 I (#10)—WALTER J IRYLE, C B E, Holme Park, Sonning, Berks, for *Tanlarch*, brown, born March 30, *s* *Tantamount*, d 5847 *Larch* by *Birk Gill 178*
 274 II (#5)—W LINDSAY LIVERARD, M P, Ratcliffe Hall, Leicester, for chestnut, born May 18, *s* *Syonby*, d *Brown Sugar*
 277 III (#3)—LADY LARRINGTON, Springfield, Marlow, Bucks, for brown, born May 21, *s* *Baydrop*, d 5980 *Lady B* by *Captivation*

Class 43.—*Hunter Filly Foals, the produce of Mares in Class 41.*

- 286 I. (#10)—WARRE & UNWIN, Longdon Hall, Tewkesbury, for brown, born May 16, *s* *Rochester*, d *Cavalini* by *Long Tom*
 283 II (#5)—H S ROBSON SCOTT, Hightown Hill Ringwood, Hants, for 6448 *Lady Butler*, chestnut, born April 12, *s* *Baydrop*, d 6435 *Optimist*

Class 44.—*Hunter Mares (Novice) with foals at foot*

- 288 I. (#20)—LIEUT COL SIR MERRIK R BURRILL, BART C B E, Knepp Castle Horsham, for 5739 *Blood Ruby*, brown born in 1918 [foal by *Valens*], *s* *The Best 147*, d 3201 *Princess Ruby* by *Red Prince*
 292 II (#10)—HARRY MASON, Kynnersley Manor Wellington, Salop, for *Seagull*, grey born in 1916 [foal by *Lord Beaupre*], bred in Ireland
 296 III (#5)—WARRE & UNWIN Longdon Hall, Tewkesbury for *Prima Donna*, grey, born in 1920 [foal by *Kildare 2nd*], bred by Geoff Kenyon, Hazby, Yorks, *s* *Primary*, d 5702 *Beauty Darling* by *Buttercrotch*
 290 IV (#4)—HIS GENERAL R M KNOTT, C L, C M G, D S O, White Hill Berkhamsted, for 6011 *Jacqueline*, bay, born in 1920 [foal by *Chanteur*], *s* *Captain Jack 158*, d 3806 *North 4th* by *Red Sahib 75*
 294 E. N.—T B NUNNELL, The Twenlows, Whitchurch, Salop, for *Betty Moss*

Class 45.—*Hunter Colt Foals, the produce of Mares in Class 44*

- 301 I. (#10)—MRS JOSEPH WINDLE, Beech Hill West Derby, Liverpool for *Jubilee*, chestnut, born May 9, *s* *Manxman*, d *Mistletoe* by *Woodstock*
 299 II (#5)—T B NUNNELL, The Twenlows Whitchurch, Salop, for chestnut, born April 21, *s* *Lord Beaupre*, d *Betty Moss* by *Neyland 175*
 300 III (#3)—WARRE & UNWIN, Longdon Hall, Tewkesbury, for grey, born April 18, *s* *Kildare 2nd*, d *Prima Donna* by *Primary*

Class 46.—*Hunter Filly Foals, the produce of Mares in Class 44*

- 280 I. (#10)—LIEUT COL SIR MERRIK R BURRILL BART C B E, Knepp Castle, Horsham, for bay, born May 1, *s* *Valens*, d 5739 *Blood Ruby* by *The Best 147*
 306 II (#5)—WARRE & UNWIN, Longdon Hall, Tewkesbury, for chestnut, born March 23, *s* *Viceroy*, d *Bellemir*
 304 III (#3)—FRIG EVERAL R M FOOT, C B, C M G, D S O, White Hill, Berkhamsted, for 6452 *Bridal Chant*, chestnut, born March 30, *s* *Chanteur*, d 6011 *Jacqueline* by *Captain Jack 158*

Class 47.—*Hunter Fillies, born in 1922.*

- 308 I. (#20)—MAJOR GORDON B FOSTER, Newton Towers, Newton, Yorks, for *Holme Belle*, bay, *s* *Dunholme*, d *Roscommon Belle* by *Broxton*
 307 II (#10)—W B BROWN, Southolme, Slingsby, Malton, for *Joy Girl*, chestnut, *s* *Jovial*, d *Proud Mary* by *Proudrider*
 311 III (#5)—DAVID LLEWELLYN JENKINS, Boverton Place, Llantwit Major Cardiff for 6365 *Glittering Gold*, chestnut, *s* *Jingling George*, d 6364 *Golden Lady* by *Bachelor's Charm 163*
 310 E. N.—T W B GUBBINS, Swalecliffe Park, Banbury, for *Rawwe*

¹ Champion Gold Medal given by the Hunters' Improvement and National Light Horse Breeding Society for the best Mare four years old and upwards in Classes 41 and 44, which must be either registered in the Hunter Stud Book, or the entry tendered within a month of the Award

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Class 48.—Hunter Fillies, born in 1923

- 314 I (£20, & R N for Champion *)—MRS M CHAUVIN Webber, Biddeford, for 6387 Ginger Jane chestnut, s Forum, d 6398 Katie 2nd by Red Prince 2nd
 315 II (£10)—MAJOR CLIVE BIRRENS, Swinton Grange, Malton, for 6207 Hecuba 2nd, bay, s Crathorne, d 4106 Heather 3rd by Scotch Sam
 316 III (£5)—H S ROBSON SCOTT, Hightown Hill, Kingwood, for 6436 Ragwort, chestnut, s Ragged Robin d 6435 Optimist
 317 R N—HARRY MASON, Kynnersley Manor, Wellington, Salop for May Day.

Class 49.—Hunter Fillies, born in 1924

- 319 I (£20, & Champion *)—W B BROWN, Southolme, Slingsby, Multon, for Home Proud, chestnut, s Duncliffe d Proud Mary by Proudridge
 320 II (£10)—LIEUT COL SIR MIRRIEL BURRIE BART, C B F, Knepp Castle, Horsham, for Chama, brown, s The Best 117 d 5330 The Belle by Hinovert Square
 321 III (£5)—D D NEWMAN, Scramby Manor, Spilsby, for 6385 Masura, bay, s Pop Covert, d 4973 Miss Barock by Akbar
 322 R N—WALTER F RYER, C B D, Holme Park, Sonning, Berks, for Gaylarch.
 H C—321

Class 50.—Hunter Geldings, born in 1922

- 338 I (£20)—MISS R M HARRISON OBL, Maer Hall, Newcastle, Staffs, for Jester 2nd (Supp No 877) bay, s Huntly Crock 196 d 6231 Miss Hutsby by Bellington
 339 II (£10)—G P and H M BALLARD, Strawmoor, Oaken, Wolverhampton for Hector, chestnut, s King Milis d 618 Miss Heston by Heston
 340 III (£5)—MAJOR WALTER H RAWNSLEY, Well Vale, Alford, Lincs, for Top o' the Vale (Supp No 803) chestnut bred by I Davy Duff, Spilsby, s Pop Covert
 341 IV (£4)—F I GAY, The Lirs, Lough Oke, Warwickshire, for King's Counsel (Supp No 708) bay, bred by H I Storey, Malmesbury, s Rathurde d Bessie by Astrologer
 342 R N—MAJOR GOLDON B LOMOND, Newton Towers, Newton, Yorks, for Dunton.
 H C—332, 333, 339 C—339

Class 51.—Hunter Geldings, born in 1923

- 343 I (£20)—MAJOR H C MERIDITH, Broadward Hall, Aston on Clun, Salop, for Baylad (Supp No 794) brown, s Baydrop d 5390 Lady B by Captivat n
 344 II (£10)—MAJOR WALTER H RAWNSLEY, Well Vale, Alford, Lincs, for Tarpanlin (Supp No 793), bay, s Pop Covert d 5170 Mermaid 8th by Ocean Wave
 345 III (£5)—MCMORRAN BRIDGES, Aston Colliery, Aston, Nantw, for Catch Me (Supp No 8113) chestnut, s Fulgrave d Bridle Way by General Symons
 346 R N—MAJOR CLIVE BRIDGES, Swinton Grange, Malton, for Prince Harry.
 H C—343

Class 52.—Hunter Colts or Geldings, born in 1924

- 347 I (£20)—G P and J M BALLARD, Strawmoor, Oaken, Wolverhampton for Gentleman Robert, chestnut colt, s King, Midas d 6302 Miss Heston by Heston
 348 II (£10)—MRS J VELYA RICH, The Grays, Stud Farm, Western Hill, Kent for Ben Lomond, chestnut colt, bred by the Middleton Park Stud, Ireland, s Lomond d Maria by Miro
 349 III (£5)—MAJOR CLIVE BIRRENS, Swinton Grange, Malton, for Full Cry, bay gelding, s Aynsley d El 1 Flemish Queen by Fericks
 350 R N—CAPTAIN OWEN PILL, Abbeygate, Bangor on Dee, North Wales, for By Command

Polo and Riding Ponies.

Class 53.—Polo and Riding Pony Stallions, born in or before 1920, not exceeding 15 hands

- 351 I (£15, & R N for Champion *)—THOMAS JAMES HILLMAN, Stud Farm, Stock Wood, Redditch, for Tom Webster 1191, bay born in 1918 bred by Messrs Botterell, s Desman (Vol 21 p 357 d Star Diamond (Vol 20 p 875) by Orion
 352 II (£10)—MRS B G CORY WRIGHT, Ayot Place, Welwyn Herts, for St Lucian 1018, dark bay born in 1917 bred by J K B Branson, Headly Mill Farm, Bordon, Hants, s Decision, d St Lucia by St Angelo

Class 54.—Polo and Riding Pony Stallions, born in 1921 or 1922, not exceeding 15 hands

- 353 I (£15, & Champion *)—CAPTAIN W H FRANCE HAYHURST, Bostock Hall, Middlewich, for Rosewood 1314 chestnut born in 1921, s Lantamount (Vol 22, p 707), d 4169 Lady Brilliant by Field Marshal 512

* Champion Gold Medal given by the Hunters Improvement and National Light Horse reeding Society for the best filly not exceeding three years old in Classes 47 to 49, which must be either registered in the Hunter Stud Book, or the entry tendered within a month of the Award

* Champion Gold Medal given by the National Pony Society for the best Stallion in Classes 3 and 54

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- 361 II. (#10).—HERBERT BRIGHT, The Cove, Silverdale, Carnforth, for Silverdale Cheerio** 1820, bay, born in 1921, bred by Capt Noel H Wills, Misarden Park, Cirencester, s Cherry Tint 761, d 4168 Silvery 2nd by Right For ard 368
366 III (#5).—LADY FRITHY, Wicken Park, Stony Stratford, for Friar (Supp 1922), black, born in 1922, s Prince Friarstown (supp 1917), d Hannah Ann (Approved Mare Register, p 40) by Chari

Class 55.—Polo and Riding Pony Mares, with foals at foot, not exceeding 15 hands

- 372 I. (#15, & Champion *)—IRISHAM GILBERT, Whitehall, Bishop's Stortford, for Rusty** (Approved Mare Register, p 33), chestnut, aged [foal by Wild Int 1207]
368 II (#10, & N for Champion, & Champion *)—HERBERT BRIGHT, The Cove, Silverdale, Carnforth, for 4168 Silvery 2nd, brown, born in 1914 [foal by Cherry Tint], bred by the late Sir John Barker, Bart, Bishop's Stortford, s Right For ard 368, d Silver Queen by Sandiway
373 III (#5, & N for Champion *)—R. H. REYNOLDS, Villa Verde, South Downs Road, Bowdon, for 4178 New Love, bay, born in 1917 [foal by Complexion 1016], bred by Miss Oscar Muntz, Horriabridge, Devon, s Arthur Pride 861, d 2435 Old Love by Goring Heath (Vol 20, p 882)
370 IV. (#4).—CAPTAIN W. H. FRANCE HAYHURST, Bostock Hall, Middlewich, for 4900 Coronet, chestnut, born in 1920 [foal by Rosewood 1314], s Little Corona 811, d 5032 Juliet 2nd by Sandiway 121
371 R. N.—CAPTAIN W. H. FRANCE HAYHURST, for Lady Brilliant.

Class 56.—Polo and Riding Pony Fillies or Geldings, born in 1922

- 378 I. (#15)—IRISHAM GILBERT, Whitehall, Bishop's Stortford, for Crofter, brown gelding bred by R. P. Croft, St Margaret's, Ware, Herts, s Reform 1002 d 2116 Kitty Spark.**
376 II. (#10, & Champion *)—HERBERT BRIGHT, The Cove, Silverdale, Carnforth, for Silverdale Betula (Supp 1922), brown filly, s Cherry Tint 761, d 4168 Silvery 2nd by Right For ard 368
377 III. (#5)—CAPTAIN W. H. FRANCE HAYHURST, Bostock Hall, Middlewich, for Roseleaf 2nd (Supp 1922), chestnut filly, s St Petersburg (Vol 21, p 479), d 4169 Lady Brilliant by Field-Marshal 512
380 R. N.—C. HOWARD JAYLOR, Middlewood Hall, Barnsley, for Cinderella 2nd.

Class 57.—Polo and Riding Pony Colts, Fillies or Geldings, born in 1923.

- 383 I. (#15)—HERBERT BRIGHT, The Cove, Silverdale, Carnforth, for Silverdale Loyalty** (Supp 1923), brown colt, s Prince Friarstown (Supp 1917), d 4168 Silvery 2nd by Right For ard 368
386 II. (#10, & N. for Champion *)—TRESHAM GILBERT, Whitehall, Bishop's Stortford, for Darry Maid (Supp 1923), chestnut filly, s Reform 1002, d 1932 Waiting Maid by Arthur D 593
382 III. (#5)—HERBERT BRIGHT for Jazz Band (Supp 1923), bay colt bred by Henry H. T. S. Iufon, Betchingley, Surrey, s Reform 1002, d Dolly 12th (Approved Mare Register, p 44)
385 IV. (#4).—CAPTAIN W. H. FRANCE HAYHURST, Bostock Hall, Middlewich, for Rosette 4th (Supp 1923), chestnut filly, s French Eagle (Vol 22 p 505), d 4169 Lady Brilliant by Field-Marshal 512
387 R. N.—LADY FRITHY, Wicken Park, Stony Stratford, for Susannah.

Class 58.—Polo and Riding Pony Colts, Fillies or Geldings, born in 1924.

- 392 I. (#15)—CAPTAIN W. H. FRANCE HAYHURST, Bostock Hall, Middlewich, for Rosarian** (Supp 1924), dark bay colt, s Rosewood 1314, d 5032 Juliet 2nd by Sandiway 121
393 II. (#10)—CAPTAIN W. H. FRANCE HAYHURST, for Rose D'Or (Supp 1924), chestnut colt, s Great Surprise (Vol 21, p 34), d 4169 Lady Brilliant by Field-Marshal 512
391 III. (#5)—MISS B. G. CORY WRIGHT, Avot Place, Witley, Herts, for Cherry Sauce (Supp 1924), chestnut gelding, s Cherry Tint 761, d Beano 2nd (Approved Mare Register, p 63)
394 R. N.—TRESHAM GILBERT, Whitehall, Bishop's Stortford, for Red Dawn

Arabs.

Class 59.—Arab Stallions, any age.

- 395 I. (#15, & Champion *)—EDWARD DILLON O'GRADY CLARK, Biddenden Park Stud, Biddenden, Kent, for Feluja 8281, dark brown, born in 1915, bred by Iedaan Anzeih Tribe**
396 II. (#10, & R. N. for Champion *)—EDWARD DILLON O'GRADY CLARK, for Kohailan 8216, flea bitten grey, born in 1912, bred by the late Emir Ibn Rischid of Hail, Nejd

* Champion Gold Medal given by the National Pony Society for the best Mare or Filly in Classes 55 to 58

* Bronze Medal given by the National Pony Society for the best Foal in Class 55 entered in the Supplement to the National Pony Stud Book

* Champion Silver Medal given by the National Pony Society for the best Filly in Classes 56 to 58

* Gold Medal given by the Arab Horse Society for the best Stallion in Class 59

Hackneys.

Class 60.—Hackney Stallions, born in or before 1921, over 14 hands.

- 399 I (**£15, & Champion** ¹)—HENRY T HOLLOWAY, West Livingston, Wiltshire for **Lavington Viceroy** 13960, dark chestnut born in 1921, s Adbolton Kingmaker 12274, d 22988 Aphrodite Iamun by Copmanthorpe Performer 9670
- 398 II (**£10**)—TOM PERCY FLOWER 257, List Park Road, Leicester for **Proctor's Boy** 13291, chestnut, born in 1914, bred by Inoch Glen, Kalm Park, Bath, etc., s King's Proctor 11102, d 17525 Lochryan Mermaid by Lord Hilston 6820

Class 61.—Hackney Stallions, born in 1922 or 1923

- 402 I (**£15, & R. N. for Champion** ¹)—HUBERT GROOM, Warham, Wells, Norfolk, for **Docking Viscount** 14221 chestnut born in 1922, s Leopard 9783, d 25536 Creakie Viscountess by Creakie Viscount 12346
- 411 II (**£10**)—J W WATFERRY, Field House, Harrow, York for **Overton Sensation** 14266, chestnut, born in 1922, bred by Thomas Harrison, Overton Skilton, Yorks, s Bertrano 13288, d 26182 Overton Queen by Garrowby Denmark 12628
- 403 III (**£5**)—HENRY T HOLLOWAY, West Livingston, Wiltshire for **Lavington Firebrand** 1406, brown, born in 1922, bred by Malcolm Sinclair, The Paddocks, Mill Hill, N W, s Bertrano 13288, d 16694 Hollin Flame by Norbury Lightning 7463

Class 62.—Hackney Mares, with foals at foot

- 406 I (**£15, & Champion** ²)—SIR LEES KNOWLES, BART CVO, OBL, Westwood, Pendlebury, Manchester, for 23769 **Slashing Dorothy**, chestnut, born in 1914 [foal by Bertrano 13288], bred by the late Sir Walter Gilbey, Bart Elsenham Hall, Essex, s Antonius 10559, d 19088 I lash Dorothy by Forest Star 7445
- 404 II (**£10, & R N for Champion** ²)—LEO HIGGITT, St Ives, Sandfield Park, West Derby Liverpool, for 25024 **Angram Express**, chestnut born in 1919 [foal by Bertrano 13288] bred by G R Dithburn, Lodge Farm, Thorganby, York, s Angram Majesty 11967, d 24645 Thorganby Princess by Parkhouse Chanticleer 11843
- 407 III (**£5**)—MRS L M SLOUGH, Oakdene, Byng Road, High Barnet, for 25026 **Capenor Adelaide**, chestnut, born in 1919 [foal by Bertrano 13288], bred by Henty B Brandt, Capenor Nutfield, Surrey, s Capenor Addenda 12979, d 18698 I treasure Trove by Goldfinder 6th 1791
- 405 R N—W M KILLICK, Hankelow Court, Hankelow, Nantwich, for **Shavington Princess Parade**.

Class 63.—Hackney Colt or Filly Foals, the produce of Mares in Class 62

- 410 I (**£10**)—SIR LEES KNOWLES, BART CVO, OBL, Westwood, Pendlebury Manchester for chestnut filly born April 6, 1925, s Bertrano 13288, d 23769 **Slashing Dorothy** by Antonius 10559
- 409 II (**£5**)—W M KILLICK, Hankelow Court, Hankelow, Nantwich for chestnut filly, born April 20 s Haydon s King Rufus 12860, d 24862 Shavington Princess Parade by Antonius 10559
- 408 III (**£3**)—LEO HIGGITT, St Ives Sandfield Park, West Derby Liverpool for chestnut filly, born May 8, s Bertrano 13288, d 25024 **Angram Express** by Angram Majesty 11967
- 411 R N—MRS L M SLOUGH, Oakdene, Byng Road, High Barnet

Hackney Ponies.

Class 64.—Hackney Pony Stallions, born in or before 1921, not exceeding 14 hands

- 412 I (**£15**)—JOHN JONES & SON, Dinarth Hall Pony Stud, Colwyn Bay, for **Inkberrow Swell** 13808, brown, born in 1920, bred by J H Hickin Three House Farm, Inkberrow, s Torchfire 9472, d 20479 Alms Hill Lady by Ialko King King 9932

Class 65.—Hackney Pony Stallions, born in 1922 (not exceeding 13 3 hands) or 1923 (not exceeding 13 2 hands)

- 415 I (**£15, & Champion** ³)—HAROLD S KENYON, Links Farm, St Anne's on Sea, for **Talke Bonfire** 14178, bay, born in 1922, bred by W Wainwright, Talke, Stoke-on-Trent, s Southworth Swell 11219, d 24086 Talke Fire Fly by Talke Fire King 9932
- 417 II (**£10, & R N for Champion** ³)—ARTHUR J WILLIAMS, Stockton House, Warrington for **Swallboy** 14398, dark bay, born in 1922, s Southworth Swell 11219 d 23967 Harviestoun Flavia by Sir Horace 5402
- 416 III (**£5**)—WILLIAM WAINWRIGHT, Pony Stud, Talke, Stoke on Trent, for **Talke Brigadier** 14300, bay, born in 1923, s Bricket Fusilier 13509, d 20273 Talke Fire Queen by Fireboy 7440

¹ Champion Prize of £10 given by the Hackney Horse Society for the best Stallion in Classes 60 and 61

² Special Prize of £10 given by the Hackney Horse Society for the best Mare in Class 62

³ Champion Prize of £10 given by the Hackney Horse Society for the best Stallion in Classes 64 and 65

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Class 66.—Hackney Pony Mares, with foals at foot, not exceeding 14 hands.

- 421 I. (£15, & Champion.)—MRS SOPER WHITBURN, Amport St Mary, Andover, for 23909 *Colma Marvel*, bay, born in 1913 [foal by Braishfield Fuse 13567], bred by J B Wright, Colne, St Ives, s Gentleman John 3824, d 17031 Warwick Wren by Fire Boy 7440.
 420 II. (£10, & R. N. for Champion.)—MRS A C KING, Braishfield Manor, Romsey, Hants, for 22849 *Tin Foil*, bay, born in 1911 [foal by Braishfield History 14206]; s. Tlasington Glideon 9042, d 13513 Gold Foil by Sir Horace 5402.
 418 III. (£5)—JOSEPH BOWRING, 4, Market Street, Chester, for 25841 *Barmore Lavender*, bay, born in 1919 [foal by Braishfield Fuse 13576], bred by H Latham, Buxton; s. Birmore Shot 1153, d 23372 Tlasington Algrette by Tlasington Revel 10463.
 419 R. N.—JOHN JONES & SON, Dinarth Hall Pony Stud, Colwyn Bay, for *Alma Hill Lady*.

Welsh Cobs.

Class 67.—Welsh Cob Stallions, born in or before 1922, over 13·2 hands.

- 424 I. (£15.)—H MEYRICK JONES, Mathrafal, Meifod, Mont, for *Mathrafal Eddwen* 965, bay, born in 1914, bred by E. Lloyd, Llanerfyl; s King Flyer 35, d 4295 Polly of Maesgelynog.
 422 II (£10.)—MAJOR W. MARSHALL DUGDALE, D S O, Llwyn, Llanfyllin, Mont, for *Llwyn Viking* 1295, bay, born in 1922; s. Llwyn Coming King 1019, d 5863 Llwyn Myfanwy by King Flyer 35.
 423 III. (£5)—H MEYRICK JONES, for *Mathrafal Blaenor*, chestnut, born in 1920, bred by J Vaughan, Sychtyn, s Pelfy Comet 886, d 6511 Sychtyn Cymraes by Idloes Flyer 537.

Class 68.—Welsh Cob Mares, born in or before 1922, with foals at foot, over 13·2 hands.

- 426 I. (£15.)—NEFYS PONY STUD, Neston, Birkenhead, for 7203 *Lady Model*, bay, born in 1917 [foal by Llwynog 1154], bred by Thos Davies & Co, Lampeter; s. Welsh Model 626, d. Lady Gweng 3rd by D'Iham Confidence.

Welsh Ponies.

Class 69.—Welsh Pony Stallions, born in or before 1922, over 12 and not exceeding 13·2 hands.

- 428 I. (£15.)—JOHN JONES & SON, Dinarth Hall Pony Stud, Colwyn Bay, for *Cream Bun* 1288, dun, born in 1920, bred by Lewis Lewis, Tynygraig, Talybont, s. Llanio Trotting Comet 872, d. 5806 Aeronwen Ceulan by Satisfaction.
 427 II. (£10.)—MAJOR W. MARSHALL DUGDALE, D S O, Llwyn, Llanfyllin, Mont, for *Llwyn Majesty*, chestnut, born in 1922; s. Llwyn Mighty Atom 1041, d 2902 Lady Lightfoot by Gwyndy Cymro 154.

Class 70.—Welsh Pony Mares, born in or before 1922, with foals at foot, over 12 and not exceeding 13·2 hands.

- 429 I. (£15.)—MAJOR W. MARSHALL DUGDALE, D S O, Llwyn, Llanfyllin, Mont, for 6086 *Llwyn Tempter*, bay, born in 1915 [foal by Llwyn Redstart], s Temptation 527, d 2902 Lady Lightfoot by Gwyndy Cymro 154.
 431 II. (£10.)—FREDRICK FFITCH MASON, The Faraam, Killay, Glam., for 7680 *Wern Sparklet*, grey, born in 1915 [foal by Hardwick Don 1064], bred by Lord Swansea, Cae Beris, Bwlth, s Fairwood Sparklight 471, d 3221 Fairwood Itwaillo.
 430 III. (£5.)—JOHN JONES & SON, Dinarth Hall Pony Stud, Colwyn Bay, for *Trillo Snorter*, bay, born in 1919 [foal by Inkberrow Swell 13808]; s Little Fire 365, d Elva Jones.

Welsh Mountain Ponies.

Class 71.—Welsh Mountain Pony Stallions, born in or before 1922, not exceeding 12 hands.

- 433 I. (£15.)—MRS H. D. GREENE Grove, Craven Arms, Salop, for *Grove King Cole* 2nd 505, grey, born in 1911; s Grove King Cole 197, d 943 Bleddfa Tell Fale by Tyrant 477.
 432 II. (£10.)—MAJOR W. MARSHALL DUGDALE, D S O, Llwyn, Llanfyllin, Mont, for *Llwyn Mighty Atom* 1041, chestnut, born in 1918; s. Llwyn Little Wonder 905, d 5205 Llwyn Coralle by Llwyn Cymro 407.
 435 III. (£5.)—FREDRICK FFITCH MASON, The Faraam, Killay, Glamorgan, for *Grove Grey Dawn* 893, grey, born in 1914, bred by Mrs H D Greene, Grove, Craven Arms; s Dyoll Starlight 4, d 2879 Grove Greyling.
 434 R. N.—MISS EUGENIE LOFT, Castlemai Stud Farm, Carnarvon, for *Castlemai Ballum*.

* Special Prize of £10 given by the Hackney Horse Society for the best Mare in Class 66.

* Silver Medals were given by the Welsh Pony and Cob Society to the First Prize Winners in each class.

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Class 72.—Welsh Mountain Pony Stallions, born in 1923 or 1924, not exceeding 11·3 hands.¹

- 437 I. (£15.)—MRS H. D. GREENE, Grove, Craven Arms, Salop, for *Grove Will-o'-the-Wisp*, grey, born in 1923; s. *Shooting Star 73*, d. 3017 *Grove Twilight* by *Grove Ballistite 200*.
 436 II. (£10.)—MAJOR W. MARSHALL DUGDALE, D.S.O., Llwyn, Llanfyllin, Mont., for *Llwyn Satan*, dark grey blaze, born in 1923, s. *Kilhendre Celtic Silverlight 953*, d. 6086 *Llwyn Tempter* by *Temptation 527*.

Class 73.—Welsh Mountain Pony Mares born in or before 1922, with foals at foot, not exceeding 12 hands.

- 445 I. (£15.)—NESS PONY STUD, Neston, Brukenhead, for 5478 *Ness Twilight*, grey, born in 1915 [foal by *Starshot 1111*], bred by T. B. Lewis, Llanwrtyd Wells, s. *Dyoll Starlight 4*, d. 4525 *Beren Kippyn*.
 440 II. (£10.)—MRS H. D. GREENE, Grove, Craven Arms, Salop, for 5469 *Grove Fairy Queen*, chestnut, born in 1915 [foal by *Shooting Star 73*], s. *Shooting Star 73*, d. 2531 *Grove Fairy*.
 443 III. (£5.)—NESS PONY STUD, for 6598 *Ness Daisy*, dun, born in 1915 [foal by *Forest Star Mixture*], bred by Evan Jones, Llandilo; s. *Wentworth Windfall 993*, d. 2904 *Little Doris* by *Dyoll Starlight 4*.
 444 R. N.—NESS PONY STUD, for *Ness Iris*.
 H. C.—442 C.—439.

Class 74.—Welsh Mountain Pony Fillies, born in 1923 or 1924, not exceeding 11·3 hands.²

- 446 I. (£15.)—MAJOR W. MARSHALL DUGDALE, D.S.O., Llwyn, Llanfyllin, Mont., for *Llwyn Venus*, grey, born in 1923, s. *Kilhendre Celtic Silverlight 953*, d. 5344 *Llwyn Mailgold*.
 454 II. (£10.)—NESS PONY STUD, Neston, Brukenhead, for *Ness Bramble*, dark grey, born in 1923, bred by A. Wilson, Cardiff, s. *Shooting Star 73*, d. 2466 *Stella* by *Ballistite*.
 447 III. (£5.)—MRS H. D. GREENE, Grove, Craven Arms, Salop, for 7013 *Grove Spitfire*, bay, born in 1923, s. *Grove Sprightly 1030*, d. 2818 *Grove Gossip* by *His Lordship 125*.
 452 IV. (£4.)—JOHN JONES & SON, Dinarth Hall Pony Stud, Colwyn Bay, for *Dinarth Fairy*, red roan, born in 1924, s. *Dinarth Laffy*, d. 4129 *Llwyn Gem* by *Llwyn Tyrant 207*.
 450 R. N.—LORD HOWARD DE WALDIN, Chirk Castle, North Wales, for *Lady Eddwen*.
 H. C.—448, 453 C.—455, 456

Shetland Ponies.

Class 75.—Shetland Pony Stallions, born in or before 1922, not exceeding 10·2 hands.

- 459 I. (£15, & Champion³)—MRS ETTA DUFFUS, Penniwells, Elstree, Herts, for *Dibblits* of *Penniwells 1087*, black, born in 1920, s. *Blitz 848*, d. *Diddy 2193* by *Diamond 257*.
 461 II. (£10, & R. N. for Champion³)—R. W. R. MACKENZIE, Earls-hall, Leuchars, Fife, for *Emilins* of *Earls-hall* (Vol. 30, p. 52), chestnut, born in 1922, s. *Sammy* of *Laberton 947*, d. *Emily 2nd 1940* by *Handfit 224*.
 463 III. (£5.)—MRS PHYLIS L. STRAKER, Stagshaw, Corbridge, Northumberland, for *Duce-Box* of *Earls-hall 1048*, grey, born in 1920, bred by R. W. R. Mackenzie, Earls-hall, Leuchars, s. *Empire Day 599*, d. *Dianna 2028* by *Dick 238*.
 460 R. N.—LADY MURIEL LIDDELL-GRAINGER, Ayton Castle, Berwickshire, for *Bright Boy* of *Earls-hall*.

Class 76.—Shetland Pony Mares, with foals at foot, not exceeding 10·2 hands.

- 466 I. (£15.)—MRS ETTA DUFFUS, Penniwells, Elstree, Herts, for *Mayfair* of *Penniwells 4052*, black, born in 1918 [foal by *Huzzoor* of *Penniwells 864*]; s. *Vagary* of *Penniwells 841*, d. *Mayfly* of *Penniwells 2582* by *Glencalrn 314*.
 468 II. (£10.)—R. W. R. MACKENZIE, Earls-hall, Leuchars, Fife, for *Emery* of *Earls-hall 3927*, grey, born in 1914 [foal by *Bell Metal* of *Earls-hall 638*], s. *Bridgroom* of *Earls-hall 400*, d. *Emily 2nd 1940* by *Handfit 224*.
 469 III. (£5.)—R. W. R. MACKENZIE, for *Ruby* of *Earls-hall 3733*, black, born in 1914 [foal by *Nemed* of *Balmuir 1010*]; s. *Helmet* of *Earls-hall 408*, d. *Rhoda* of *Earls-hall 2738* by *Thor 83*.
 465 R. N.—MRS F. BRIAN BIBBY, Sansaw, Shrewsbury, for *Sweet Lane* of *Earls-hall*.

¹ Prizes given through the Welsh Pony and Cob Society.

² Prizes, except Fourth, given through the Welsh Pony and Cob Society.

³ Champion Silver Medal given by the Shetland Pony Stud Book Society for the best Shetland Pony in Classes 75 and 76.

Riding Classes.¹

Class 77.—*Hunter Mares or Geldings, born in 1921.*

- 491 I. (215).—GEOFF KENYON, Armscote House, Stratford on Avon, for *Sinbad the Sailor*, chestnut gelding
 493 II. (210).—CAPT C SCOTT HOPKINS, Low Hall, Kirbymoorside, for *Plarmigan*, bay gelding, bred by Major Olive Schrens, Swinton Grange, Malton, s Primary, d 4106 Heather 3rd by Scotch Sign
 495 III. (25).—MRS J C G KIRKPATRICK, Three Gates, Moreton Morrell, Warwick, for 6375 *Fair Hilda 2nd*, chestnut mare, bred by John Bambei, Farm Lodge, Ballymena; s Thory, d Fair Hilda
 498 IV. (23).—McMORRAN BROTHERS, Aston Cottage, Aston, Nantwich, for *Daybreak*, chestnut gelding, s Strong Drink
 476 E. N.—MAJOR GORDON B FOSTER, Newton Towers, Newton, Yorks, for *Donthwaite*.
 E. C.—479 C.—489

Class 78.—*Hunter Mares or Geldings (Novice), born in or before 1921, up to from 12 to 14 stones*

- 504 I. (215).—JOHN DRAGE, Chapel Brampton, Northampton, for *Brandy*, chestnut gelding born in 1919
 505 II. (210).—JOHN DRAGE, for *David*, chestnut gelding born in 1920
 495 III. (25).—MRS KIRKPATRICK, for *Fair Hilda 2nd*. (See Class 77)
 498 IV. (23).—McMORRAN BROTHERS, for *Daybreak*. (See Class 77)
 517 E. N.—R WEAVER, Castletown, Farndon, Cheshire, for *Memento*.
 E. C.—476 492

Class 79.—*Hunter Mares or Geldings (Novice), born in or before 1921, up to more than 14 stones.*

- 529 I. (215).—J KENNETH SEVISON, The Chase, Upper Welland, Malvern Wells, for *Ambition*, bay gelding, born in 1919
 493 II. (210).—GEOFF KENYON, Armscote House, Stratford on Avon, for *Daniell*, grey gelding, born in 1920
 521 III. (25).—SIR ARTHUR CORY-WRIGHT, Ayot Place, Welwyn, Herts, for *Cinnamon*, dark chestnut gelding born in 1918
 519 IV. (23).—R WEAVER, Castletown, Farndon, Cheshire, for *Mayfly*, bay gelding, born in 1919
 480 E. N.—MRS ROBERT COTTRILL, Sandil Lodge, Droitwich, for *Calthorpe*.

Class 80.—*Hunter Mares or Geldings, born in or before 1921, up to not more than 14 stones. To be ridden by a lady, side-saddle.*

- 505 I. (215).—JOHN DRAGE, for *David*. (See Class 78)
 490 II. (210).—McMORRAN BROTHERS, Aston Cottage, Aston, Nantwich, for *The Coulin*, bay gelding, born in 1917, bred by P Molone, V S, Wexford, s Killinich, d Leap Year.
 504 III. (25).—JOHN DRAGE, for *Brandy*. (See Class 78)
 517 IV. (23).—R WEAVER, Castletown, Farndon, Cheshire, for *Memento*, chestnut gelding, born in 1919
 513 E. N.—MRS BOLLY FLOOD, Tattenhall, Chester, for *Peggy*.

Class 81.—*Hunter Mares or Geldings, born in or before 1921, up to from 12 to 13·7 stones.*

- 477 I. (220, & E. N. for Champion).—MRS. GORDON B FOSTER, Newton Towers, Newton, Yorks, for *Jovial King*, brown gelding, born in 1918, bred by Duncombe Park Trustees, Helm-sley, Yorks, s Jovial, d 6151 Flemish Queen (Supp No 763) by Pericles
 505 II. (215).—JOHN DRAGE, for *David*. (See Class 78)
 490 III. (210).—McMORRAN BROTHERS, for *The Coulin*. (See Class 80)
 533 IV. (25).—W. L STOKES, Great Bowden, Market Harborough, for *Lanhouse*, bay gelding, born in 1914
 495 V. (23).—MRS KIRKPATRICK, for *Fair Hilda 2nd*. (See Class 77)
 492 E. N.—GEOFF KENYON, Armscote House, Stratford-on-Avon, for *Whitebart*.

Class 82.—*Hunter Mares or Geldings, born in or before 1921, up to more than 13·7 and not more than 15 stones.*

- 511 I. (220, & Champion).—W. H MIDWOOD, Calveley Hall, Tarporley, for *Wilknestown*, chestnut gelding
 504 II. (215).—JOHN DRAGE, for *Brandy*. (See Class 78)
 493 III. (210).—GEOFF KENYON, for *Daniell*. (See Class 79.)
 519 IV. (25).—R WEAVER, for *Mayfly*. (See Class 79)
 476 V. (23).—MAJOR GORDON B FOSTER, Newton Towers, Newton, Yorks, for *Donthwaite*, bay gelding, s Dunholme, d Roscommon Belle by Broxton
 534 E. N.—WILLIAM J NEILSON, Berrow House, Ledbury, for *The Brook*.

¹ Prizes given by the Chester Local Committee.

² Gold Challenge Cup value Fifty Guinea, given by gentlemen interested in Hunters for the best Mare or Gelding in Classes 77 to 83

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Class 83.—Hunter Mares or Geldings, born on or before 1921, up to more than 15 stones

- 529 **I** (£20)—J KINSETH STEVENSON, for *Ambition* (See Class 79)
 543 **II** (£15)—MAJOR J L NICKISSON, Hinton Manor, Swindon, for *Buckingham* (Supp No 804) fleabitten grey gelding, aged
 521 **III** (£10)—SIR ARTHUR CORY WRIGHT, for *Cinnamon* (See Class 79)
 507 **IV** (£5)—JOHN DRAGG, Chapel Brampton, Northampton for *Tank*, bay gelding, born in 1918

Hacks and Riding Ponies.

Class 84.—Hack or Riding Pony Mares or Geldings, not exceeding 15 hands (Light Weight)

- 555 **I** (£15, & Champion¹)—MRS EVELYN RICH, The Grange Stud Farm, Westerham Hill Kent, for *Loch Monar*, chestnut mare, born in 1921, bred by the Gravelstown Stud Ireland, s *Stornoway*, d *Monnie* by Bachelors Double
 548 **II** (£10)—INDIAN ARMY REMOUNT DEPARTMENT, c/o Capt C F Aitken, Glendower Hotel, South Kensington for *Trocadero*, brown gelding, born in 1920, s *Pascadero*
 487 **III** (£5)—MCMORRAN BROTHERS, Aston Cottage, Aston, Nantwich, for *Parade*, chestnut gelding, s *Ybro*, d *Marigold* by Marco
 545 **IV** (£3)—LORD HOWARD DE WALDEY, Chirk Castle, North Wales, for *Pat*, grey gelding, born in 1918

Class 85.—Hack or Riding Pony Mares or Geldings, not exceeding 15 hands (Heavy Weight)

- 494 **I** (£15)—GEOFF KENYON, Armscote House, Stratford on Avon, for *Chubby*, grey gelding

Class 86.—Hack or Riding Pony Mares or Geldings, over 15 hands

- 561 **I** (£15, & **R N** for Champion¹)—LADY PLUNKET, Wicken Park, Stony Stratford, for *Bimbim*, chestnut mare, born in 1920
 524 **II** (£10)—SIR HOWARD FRANK, BART, K C B, G B E, 20, Hanover Square, London, W, for *Derwent Lass*, chestnut mare, aged
 556 **III** (£5)—MRS EVELYN RICH, The Grange Stud Farm, Westerham Hill, Kent, for *Sovereign* 651, chestnut gelding, born in 1917, s *Dundreary*, d *ink Note* by *Avarice*
 553 **IV** (£3)—MISS M M PARKES, Lapel House, Quinton, Birmingham, for *Thorpe Lad*, chestnut gelding, born in 1920, bred by J Rohan, s *Ben Alder* d *M T* by *Loussaint*
 478 **R. N.**—MRS GORDON B FOSTER, Newton Towers, Newton, Yorks for *Salton*

Children's Ponies.

Class 87.—Mares or Geldings, not exceeding 13 hands, to be ridden by a child born in or after 1915

- 566 **I** (£10)—JOAN BICKLEY, Grafton House, Montford Bridge, Salop, for *Dainty*, bay mare, born in 1918
 535 **II** (£5)—WILLIAM J NELSON, Berrow House, Ledbury, for *Pixie*, grey mare, born in 1919
 531 **III** (£3)—J KENNETH STEVENSON, The Chase, Upper Welland Malvern Wells, for *Tom Tita*, bay gelding, born in 1920
 569 **R. N.**—MISS DOROTHY PATTARSON, The Riding School, Trentham, Stoke on Trent for *Bustle*.
H C—568, 570, 572

Class 88.—Mares or Geldings, over 13 and not exceeding 14 hands, to be ridden by a child born in or after 1912

- 547 **I** (£10)—MRS PHILIP HUNLOCK, Cowbridge, Malmesbury, for *Cinders*, black brown mare, born in 1919
 579 **II** (£5)—ERIC B FORWOOD, Stanford Mear, Rugby, for *Muscatal*, bay mare, born in 1919
 575 **III** (£3)—CHARLES E EDWARDS, Mount Selfton, Craven Arms Salop for *Champagne*
 587 **R. N.**—MISS BUNTY TULLOCH, The Ridge, Alderley Edge, for *Moonbeam*
H C—573, 577, 578, 584

Class 89.—Mares or Geldings, over 14 and not exceeding 15 hands, to be ridden by a child born in or after 1909.

- 594 **I** (£10)—MISS BETTY WHITAKER, Rivenhall, Church Stretton, Salop, for *Mirage*, bay mare, born in 1920
 487 **II** (£5)—MCMORRAN BROTHERS for *Parade*. (See Class 84)
 589 **III** (£3)—CHARLES E EDWARDS, Mount Selfton, Craven Arms, for *Twilight*, chestnut gelding
 542 **R. N.**—LORD HINDLEIF, Doveridge Hall, Derby, for *Lustre*
H C—588, 591

¹ Silver Challenge Cup, value Twenty five Guineas, given by a member of the R A & H for the best animal in Classes 84 to 86

Driving Classes.¹

SINGLE HARNESS

Class 90.—*Harness Mares or Geldings (Novice), not exceeding 14 hands.*

- 595 I (*#15, Champion,¹ & R N for Champion*)—WILLIAM HEATH, Shavington House, Crewe, for Oxholme Knight, black-brown gelding, born in 1918, bred by H Gilding Gateacre, Ilverpool, s Mathias 6173, d 18691 Lissington Golden Ray by Goldfinder 6th 1791
- 614 II (*#10*)—ROBERT HORNER, 39, Waterloo Road, Middlesbrough, for 25948 Dainty Dinah, bay mare, born in 1921, s Tusce 12626, d 25321 Sweet Liberty by Successful 8314
- 612 III (*#5*)—MRS EDGAR HENRIQUES Fernholm, Southport, for 25750 Buckley Prima Donna, bay mare, born in 1920, bred by the late C I Kenyon, Whitechurch Salop, s Melbourne Shot 13055, d 18691 Lissington Golden Ray by Goldfinder 6th 1791
- 596 IV (*#3*)—HAROLD S KLYNEN, Links Farm, St Annes on Sea, for 25964 Julia Southworth, bay mare born in 1921 bred by Joshua Ball, Southworth Hall Warrington, s Southworth Swell 11219, d 21874 Southworth Merriment by Southworth Tassington
- 615 R N—MISS EUGENIE LORT, Castlemal Stud Farm, Carnarvon, for Castlemal Devilled Biscuit.

Class 91.—*Harness Mares or Geldings (Novice), over 14 and not exceeding 15 hands*

- 634 I (*#15*)—THOMAS HIGGINS, St Ives Sandfield Park, West Derby Ilverpool for West Derby Model G 415, dark bay gelding born in 1919, bred by I J Jones High Street, Ilkeston Anglesey, s Milton Fireway 6567, d Rosa Wildfire by Lonsborough Squire 8550
- 641 II (*#10*)—J R SKELLYN, 5 Stanley Street, Wrexham for 25084 Trillo Princess, dark brown mare, born in 1920, bred by John Jones and Son Dinarth Hall, Colwyn Bay, s Danum Orchid 13497, d 16733 Lady Conna, by Confidant 936

Class 92.—*Harness Mares or Geldings (Novice), over 15 hands*

- 647 I (*#15, & Champion*)—PHILIP SMITH, Haddon House Ashton on Mersey, for 25897 Haddon Philpina, chestnut mare, born in 1921, s Haydon's King Rufus 12860, d 23566 Glenavon Flame by King's Proctor 11112
- 649 II (*#10*)—I A WARING, Homesfeeton, Sefton Park Ilverpool, for Sefton Courier G 347, bay gelding born in 1921, bred by Lnoch Glen, Kaim Park, Bathgate, s Ophelus 13344, d 24043 Oakington Ring o' Bell by Antonius 10559
- 648 III (*#5*)—EDWIN TIPPLE, Cross Plains Farm, Needwood Burton on Trent, for Park Royal, chestnut gelding, born in 1920, s Scout Master 12487, d 22861 Vivette by Thuk burn Toreador 8534
- 642 IV (*#3*)—JOHN R SKELLYN, 5 Stanley Street, Wrexham, for Sir William, bay gelding born in 1921 bred by G Cooke Shipton Thorpe East Yorks, s Field Polonius 13195, d 24830 Primrose Maggie by Buckthorpe Polonius 11998

Class 93.—*Harness Mares or Geldings, not exceeding 13 2 hands*

- 606 I (*#15, & Champion*)—WILLIAM S MILLER, Balmanno Castle, Bridge of Earn for Bilet Doux G 38, brown gelding, born in 1921 bred by C H Wigg, Boston, s Southworth Swell 11219, d 23186 Jenny Melbourne by Successful 8314
- 601 II (*#10, & R N for Champion*)—RICHARD BUCHER, High Street, West Bromwich, for Glenavon Gunfire G 197, bay gelding, born in 1920, bred by Enoch Glen Kaim Park, Bathgate, s Melbourne Shot 13055, d 23129 Glenavon Princess Caprice by Fireboy 7440
- 619 III (*#5*)—ANDREW MAITLAND, Thornleigh Vicars Cross, Chester, for Cestrian Mercury G 433 bay gelding born in 1921 bred by Mrs Humphrey, Morton, Gainsborough, s Successful 8314, d 23855 Axholme Lady Edith by Southworth Swell 11219
- 652 IV (*#3*)—SAM HOLDSWORTH, 9 Stanmore Place, Lidget Green, Bradford for 25511 Buckley Sunrise, bay mare, born in 1919, bred by the late C F Kenyon, Whitechurch, Salop, s Successful 8314, d 18691 Tassington Golden Ray by Goldfinder 6th 1791
- 615 R N—MISS EUGENIE LORT, Castlemal, Carnarvon, for Castlemal Devilled Biscuit.
H C—627

Class 94.—*Harness Mares or Geldings, over 13 2 and not exceeding 14 hands.*

- 602 I (*#15*)—RICHARD BELCHER, High Street, West Bromwich, for Buckley Searchlight G 100, brown gelding, born in 1914, bred by W O Smethurst, Woolfold, Bury, Lancs, s Torchlight 9472, d 24608 Walshaw Sunlight by Ganymede 2076

¹ Prize given by the Chester Local Committee

² Gold Challenge Cup value Fifty Guineas, given by a Member of the Hackney Horse Society for the best Animal in the Novice Classes 90 to 92

³ Champion Prize of £5 given by the Hackney Horse Society for the best Mare or Gelding in Classes 90 to 97, the produce of a registered Hackney Stallion

⁴ Silver Challenge Cup, value Twenty five Guineas, given by the National Terrier Club for the best Pony not exceeding 14 hands in Classes 93 and 94.

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620 II. (#10)—ANDREW MAITLAND, Thornleigh, Vicars Cross, Chester, for *Cestrian Furious* G 285, dark brown gelding, born in 1917, bred by G. T. Shield, Burnopfield, Durham, s. Sir Ivor 12717, d. by Torchfire 9472

595 III. (#5)—WILLIAM HEPATH, for *Oxholme Knight*. (See Class 90)

614 IV. (#3)—ROBERT HORNBER, for *Dainty Dinah*. (See Class 90)

612 R. N.—MRS. LUDGAR HENRIQUES, Kørnholm, Southport, for *Buckley Prima Donna*.

Class 95.—*Harness Mares and Geldings, over 14 and not exceeding 15 hands.*

608 I. (#15)—WILLIAM S. MILLER, Balmanno Castle, Bridge of Earn, for 25386 *Stella Vane*, brown mare, born in 1910, bred by James Tullingham, The Limes, Old Hill, s. Mathias 6473, d. 18500 *Polly Vane* by Polonus 4931

630 II. (#10)—H. J. COLBROOK, Fulmer, Bucks, for *Netherfield Argenteau* G 66, bay gelding, born in 1916, bred by Mrs. A. C. King, Bushfield Manor, Romsey, s. Mathias 6473, d. 22414 *Lushfield Chiffon* by Berry Hill Snap 8739

641 III. (#5)—J. R. SKILLERN, for *Trillo Princess*. (See Class 91)

634 IV. (#3)—THEO. HIGNETT, for *West Derby Model*. (See Class 91)

Class 96.—*Harness Mares or Geldings, over 15 and not exceeding 15 2 hands.*

622 I. (#15, & R. N. for Champion¹)—ANDREW MAITLAND, Thornleigh, Vicars Cross, Chester, for 24544 *Leicester Princess*, dark chestnut mare, born in 1910, bred by J. O. Nicol, London Road, Leicester, s. Mathias 6473, d. 21744 *Westfield Surprise* by Paddock Polonus 7208

631 II. (#10)—H. J. COLBROOK, Fulmer, Bucks, for *Fulmer Pilot* G 169, chestnut gelding, born in 1910, bred by Caleb Humphreys, Higher Framtree, Birkbeck, s. Mathias 6473, d. 19815 *Calbar Canadian Girl* by Carlton Duke of Connaught 3009

647 III. (#5)—PHILIP SMITH, for *Haddon Philpina*. (See Class 92)

648 IV. (#3)—LUDWIG TIPPER, for *Park Royal*. (See Class 92)

Class 97.—*Harness Mares or Geldings, over 15 2 hands*

610 I. (#15, Champion² & Champion³)—WILLIAM S. MILLER, Balmanno Castle, Bridge of Earn for *Grand Fashion* G 32, bay gelding, born in 1918, bred by Ernest Buckley, Danum, Rathfriland, s. Mathias 6473, d. 20279 *Errington Hube* by Goldfinder 6th 1791

655 II. (#10)—MISS ARIE (CHAVASSE), 56 High Street, Sutton Coldfield, for *Tudor Emperor* G 387, chestnut gelding, born in 1910, bred by Dr. Howard S. Chavasse, High Street, Sutton Coldfield, s. Adbolton Kingmaker 12274, d. 23380 *Tudor Empress* by Mathias 6473

651 III. (#5)—T. A. WARING, Homesfeaton Sefton Park, Liverpool for *Sefton Cavalier* G 279, bay gelding, born in 1920, bred by the late Joseph Morton, Stow, Downham Market, s. St. Adrian 1 000, d. 24150 *Alleyne* by Buckingham Square 8070

632 IV. (#3)—H. J. COLBROOK, Fulmer, Bucks, for *Fulmer Maxim*

DOUBLE HARNESS

Class 98.—*Harness Mares or Geldings, not exceeding 15 hands.*

656 I. (#20, & Champion⁴)—NIGEL C. COLMAN, 1 Upper Grosvenor Street, London W, for 25770 *Silhouette of Nork*, brown mare, born in 1914, s. Mathias A1 10751, d. 17233 *Crisolida* by Polonus 4931, and *Lochaudil* G 217, brown gelding, born in 1919, bred by Mrs. J. L. Logan, Doon Bank, Inverness, s. Lord Lucy 13623, d. 22571 *Grenny* by Mathias 6473

630 & 633 II. (#15)—H. J. COLBROOK, for *Netherfield Argenteau* (see Class 95), and *Glenavon Crest* G 290, brown bay gelding, born in 1919, bred by McCall Brothers, Burnhead, Kilsyth, s. Mathias 6473, d. 22334 *Burnhead Countess Campton* by Adderley 10054

620 & 634 III. (#10)—ANDREW MAITLAND, for *Cestrian Furious* (see Class 94), and *Cestrian Fury*, dark brown

Class 99.—*Harness Mares or Geldings, over 15 hands*

631 & 632 I. (#20, & R. N. for Champion⁵)—H. J. COLBROOK, for *Fulmer Pilot* (see Class 96), and *Fulmer Maxim*

625 II. (#15)—ANDREW MAITLAND, Thornleigh, Vicars Cross, Chester, for *Cestrian Regal* and *Cestrian Royalist*, bay geldings

649 & 651 III. (#10)—T. A. WARING, for *Sefton Courtier* (see Class 92), and *Sefton Cavalier* (see Class 97)

TANDEM.

Class 100.—*Harness Mares or Geldings, not exceeding 15 hands.*

656 I. (#20, & R. N. for Champion⁶)—NIGEL C. COLMAN, for *Silhouette of Nork* and *Lochaudil*. (See Class 98)

630 & 633 II. (#15)—H. J. COLBROOK, for *Netherfield Argenteau* (see Class 95), and *Glenavon Crest* (see Class 98)

626 III. (#10)—ANDREW MAITLAND, Thornleigh, Vicars Cross, Chester

¹ The "Chester" Gold Challenge Cup, value fifty guineas, given by the Chester Local Committee for the best Animal in Classes 93 to 97

² Champion Prize of £5 given by the Hackney Horse Society for the best Mare or Gelding in Classes 90 to 97, the produce of a registered Hackney Stallion

³ The "Glasgow" Gold Challenge Cup, value fifty guineas, given by a member of the R. A. S. E., for the best Pair in Classes 98 and 99

⁴ Silver Challenge Cup, value twenty-five guineas, given by a member of the R. A. S. E. for the best Tandem in Classes 100 and 101.

Class 101.—Harness Mares or Geldings, over 15 hands.

- 625 I. (£20, & Champion.¹)—ANDREW MAITLAND, for *Cestrian Regal* and *Cestrian Royalist*.
(See Class 99)
631 & 632 II. (£15.)—H. J. COLEBROOK, for *Fulmer Pilot* (see Class 96); and *Fulmer Maxim*.

Four-in-Hand Teams.

Class 102.—Mares or Geldings.

- 646 I. (£30.)—W. A. BARRON, 91 Westbourne Terrace, London, W., for four chestnuts.
657 II. (£25.)—W. W. THEOBALD, Bournside, Cheltenham, for four chestnuts.
658 III. (£20.)—PETER WALKER & SON, LTD, 105 Duke Street, Liverpool, for four bays.

CATTLE.

Shorthorns.

Class 103.—Shorthorn Bulls, born in or before 1922.

- 674 I. (£15.)—THE HON. MRS. BRUCE WARD, Godinton, Ashford, Kent, for *Balcairn Eagle* 168680, dark roan, born April 8, 1921, bred by F. L. Wallace, Balcairn, Oldmeldrum; s. Earl of Kingston 120041, d. Edgcote Doris by Ascott Magnett 118612
667 II. (£10.)—W. S. MACWILLIAM, M.V.O., Garbity, Orton Station, Morayshire, for *Saltoun Jehu* 166834, dark roan, born April 1, 1920, bred by Captain A. M. Talbot Fletcher, Saltoun, E. Lothian; s. Sanguhar Grand Courtier 139193, d. Saltoun Jenny Lind by Grand Champion 120527.
659 III. (£5.)—H. R. II THE PRINCE OF WALES, K.G., Marsh Farm, Landulph, Hatt, Cornwall, for *Diamond Butterfly* 155319, roan, born April 18, 1919, s. Butterfly Knight 130029, d. Miss Butterfly 5th by Leap Year 116201.
675 IV. (£24.)—THE EXORS. OF THE LATE F. B. WILKINSON, Cavendish Lodge, Edwinstowe, Mansfield, for *Hean Chorister* 156374, white, born May 30, 1919, bred by Lord Merthyr, Hean Castle, Saundersfoot, Pembrokeshire; s. Collynie Chancellor 119543, d. Charity 14th by Newton Crystal 92658.
668 V. (£3.)—ALBERT JAMES MARSHALL, Bridgebank, Stranraer, for *Bridgebank Retrospect* 161657, dark roan, born June 20, 1920, s. Fairlawrie Red Lion 142322, d. Bridgebank Rosewood 2nd by Prince Charlie 117015
673 R. N.—J. H. TOPPIN, Musgrave Hall, Skelton, Cumberland, for *Brandsby's D.S.O.* H. C.—660. C.—666, 670, 676.
668, 685, 697 Special, £15.*—ALBERT JAMES MARSHALL, for *Bridgebank Retrospect*, *Bridgebank Phoenix* and *Bridgebank Bard*.
659, 703, 791 Special, £10.*—H. R. H. THE PRINCE OF WALES, K.G., for *Diamond Butterfly*, *Climsland Regal King* 2nd and *Climsland Orange Blossom* 3rd.

Class 104.—Shorthorn Bulls, born on or between January 1 and March 31, 1923.³

- 686 I. (£15.)—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading, for *Basildon Royal* 2nd 187225, white, born Jan. 15; s. Collynie Orient 170462, d. Basildon Rosewood by Scarabe 128047.
685 II. (£10.)—ALBERT JAMES MARSHALL, Bridgebank, Stranraer, for *Bridgebank Phoenix* 187759, roan, born Jan. 3; s. Balcairn Baronet 153506, d. 5590 Princess Glendora by Edgcote Hero 186371.
680 III. (£5.)—GEORGE HARRISON, Gainford Hall, Darlington, for *Tillmouth Wonder* 194694, roan, born Feb. 9, bred by J. R. Wood, Castle Henton, Cornhill-on-Tweed; s. Edgcote Viscount 142232, d. Shipley Witch by Alnwick Magician 129120
681 IV. (£4.)—J. and N. N. LEE, Stonelands, Arncliffe, Skipton-in-Craven, for *Millhills Clipper King* 192163, roan, born March 8, bred by D. M. Stewart, Millhills, Crief; s. Cupbearer of Collynie 114960, d. Fair Clipper by Collynie Crutchshank 105068
684 R. N.—ALBERT JAMES MARSHALL, for *Bridgebank Fairie Knight*.

Class 105.—Shorthorn Bulls, born on or between April 1 and December 31, 1923.

- 658 I. (£15, R. N. for Champion,⁴ and R. N. for Champion.⁵)—ALBERT JAMES MARSHALL, Bridgebank, Stranraer, for *Collynie Royal Leader* 188656, red roan, born Dec. 1, bred by J. Duthie Webster, Collynie, Tarves, N.B.; s. Balcairn White Eagle 153591, d. Eliza Lass by Masterstroke 126820.

¹ Silver Challenge Cup, value Twenty-five Guineas, given by a member of the R.A.S.E. for the best Tandem in Classes 100 and 101.

² Special Prizes of £15 First Prize, and £10 Second Prize, given by the Shorthorn Society for the best groups of three animals bred by Exhibitor in Classes 103 to 113.

³ Prizes, except Fourth, given by the Shorthorn Society.

⁴ Champion Prize of £20 given by the Shorthorn Society, for the best Bull in Classes 103 to 108. A Silver Medal is given by the Shorthorn Society to the Breeder of the Champion Bull.

⁵ The "Brothers Colling" Memorial Perpetual Challenge Cup, value Three Hundred Guineas, given through the Durham Agricultural Committee for the best Shorthorn in Classes 103 to 113.

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- 699 **II. (#10)**—**ALBERT JAMES MARSHALL**, for *Obligation* 192507, dark roan, born Nov 7 bred by J and L Durno, Uppermill, Larves, s Millhills Clarion 174123, d Orange Blossom 50th by Collynie Chkf 114765
- 694 **III. (#5)**—**GEORGE HARRISON**, Gainford Hall, Darlington, for *Abbeyfarm Premier* 186474, roan, born Oct 21, bred by J and H P Webber, Abbey Farm, Malton, s Cudham Fancy 155180, d Rosedale Mina 9th by Allerston Mayor 110736
- 697 **IV. (#4)**—**ALBERT JAMES MARSHALL** for *Bridgebank Bard* 187700, red, born Aug 23, s Balcarn Baronet 153566, d Blythesome Deatrice by Broadhooks Diamond 124530
- 701 **V (#3)**—**J M STRICKLAND**, Bainesse Catterick, for *Bainesse Ramsden King* End 186872, white, born April 6, s Bainesse Royal Prince 168665, d Lothian Miss Ramsden by Millhills Rothes King 138020
- 688 **E N**—**MISS A SYLVIA BROCKLEBANK**, O B E, Wing Grange, Oakham, for *Balcarn Golden Monarch*.
H. C.—687

Class 106.—*Shorthorn Bulls, born on or between January 1 and March 31, 1924.*¹

- 721 **I. (#15, Champion, and Champion)**—**GEORGE SWIFT** Hasclor Fresham, for *Hasclor Clipper Knight* 190335, white, born Jan 7 s Collynie Clipper King 135816, d 3496 Longwood Clipper by Knight I vander 121046
- 710 **II. (#10)**—**JOHN HEATON**, O B E, Low Startforth Hall, Barnard Castle, for *Startforth Loyalist* 203897, white, born Feb 10 s Fairlawne Air Raid 148740, d 25076 Startforth Lavender Crystal by Collynie Lavender King 141709
- 703 **III (#5)**—**H R H THE PRINCE OF WALES**, K G Marsh Farm, Landulph, Hatt, Cornwall for *Cumland Regal King* End 197380, roan, born Feb 29, s Christian King 147900, d (Hmsland Regal Mary (Vol 65 p 560) by Edgcote Count 136164
- 716 **IV (#4)**—**ALBERT JAMES MARSHALL**, Bridgebank, Strunmar, for *Dunglass Roland* 198222, red, born March 31, bred by W and J W Peterkin Dunglass, Canon Bridge s Whitewor Commodore 186213, d 16971 Queen of the Rothes 10th by Collynie Star 141717
- 707 **V (#3)**—**ARTHUR GREY**, Denton, Ben Rhydding, Leeds, for *Denton Triumph* 197995 red, born Feb 28, s Collynie Golden Key 170455, d Millhills Rothes Queen 3rd (Vol 63 p 1122) by Cupbearer of Collynie 114960
- 709 **E. N**—**GEORGE HARRISON**, Gainford Hall, Darlington, for *Gainford Advocate* C—711, 717, 718
- 713 **Special**—**JOHN LATHAM** Green Bank Farm, Alsager, Cheshire for *Prince Edward* 201846, dark roan, born March 5 bred by J Barnes Aikbank Winton, s King Edward 164538, d Aikbank Ramsden (Vol 64, p 703) by Pearl Fina 116011

Class 107.—*Shorthorn Bulls, born on or between April 1 and June 30, 1924*

- 735 **I (#15)**—**MRS FRANCES PUMPHREY**, Hindley Hall, Stocksfield on Fyne, for *Hindley White Ensign* 199551, white, born May 24, s Double Lvent 162830, d 17205 Hindley Clipper Crystal by Edgote Goldstone 142214
- 727 **II (#10)**—**COLONEL H T INCHICK**, Stenigot, Louth Lines for *Archer Royal* 195692, born April 24, s Millhills Rifman 183162, d 23733 Augusta Perseverant by Vizie 134174
- 722 **III (#5)**—**HIS MAJESTY THE KING** The Royal Farms, Windsor, for *Windsor Monson* 204070, white, born June 2, s Cudham Prince Augustus 170765, d 32516 Windsor Golden Jilt by Royal Gauntlet 159047
- 728 **IV (#4)**—**JAMES DOUGLAS FLETCHER** Rosehaugh, Avoch, Ross shire for *Rosehaugh Golden Hero* 202330, roan, born April 3, s Balmakyle Rothes Prince 178155, d Gem of Suddie (Vol 62 p 791) by Collynie Matadore 111337
- 732 **V. (#3)**—**GEORGE HARRISON**, Gainford Hall, Darlington for *Leveret* 200427, white, born April 1, bred by G B Shields, Dolphinstone, Lancast, s Millhills Buccaneer 183155, d Lavender Lilac (Vol 64, p 1264) by Collynie Grand Duke 124844
- 729 **E. N**—**L V GARIAND**, Greenbank, The Towns, Hayle, Cornwall, for *Towan Bachelor* C—724, 734

Class 108.—*Shorthorn Bulls, born on or between July 1 and December 31, 1924*¹

- 758 **I. (#15)**—**SIR GEORGE ALFRED WILLS**, Bart, Langford Court Farm, Langford, Bristol, for *Rickford Eclipse* 202189, dark roan, born July 2, s Collynie Rubicon 170695, d 44018 Filza Lady 4th by Balcarn White Eagle 153591
- 742 **II (#10)**—**ALEXANDER & ADIE**, Newbiggin, Cambus, Stirling, for *Cambus Equerry*, 19027, red and little white, born Nov 26, s Millhills Eclipse 174124, d 32682 Cambus Secret by Balcarn Guardsman 160949

¹ Prizes, except Fourth and Fifth, given by the Shorthorn Society

² Champion Prize of £20 given by the Shorthorn Society for the best Bull in Classes 103 to 108. A Silver Medal is given by the Shorthorn Society to the Breeder of the Champion Bull

³ The "Brothers Colling" Memorial Perpetual Challenge Cup value Three Hundred Guinea, given through the Durham Agricultural Committee for the best Shorthorn in Classes 103 to 113

⁴ Special District Prize of £10, given by the Shorthorn Society, for the best Bull in Classes 106, 107 and 108, the property of an Exhibitor residing in Cheshire. A Silver Medal was given by the Shorthorn Society to the Breeder of the animal winning the £10 District Prize

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- 744 **III. (25)**—**LIEUT. COLONEL E. P. BRASSBY**, Manor Farm, Upper Slaughter, Bourton on the Water, Glos., for **Rosebud King 202304**, red roan, born July 2, s. Abbeymains Combatant 168245 d. 10636 Rosebud s. Fancy by Edgote Magnet 148667
 741 **IV (24)**—**H. R. H. THE PRINCE OF WALES, K.G.**, Home Farm, Stoke Climsland, Cornwall, for **Climsland Royalist 197382**, roan, born July 11 s. Collynle Herald 179685, d. Whiteford Butterfly (Vol. 64, p. 670) by Nicholas of Cluny 118748
 748 **V (23)**—**GEORGE HARRISON**, Gainford Hall, Darlington, for **Gainford Pilot 198856**, red roan, born Nov. 2, s. Cleero Jilt 179483, d. Gainford Pauline 4th (Vol. 64, p. 961) by Collynle Mandarin 119552
 753 **E. N.**—**SIR HERBERT IFON, BART.**, Bletchley Park, Bletchley, for **Bletchley Royalist**.
H. C.—739 **C.**—750, 751

Class 109.—Shorthorn Cows (in-milk), born in or before 1921

- 761 **I (215)**—**JOSEPH HARRIS**, Brackenburgh Tower, Carlisle, for 13723 **Water Lily 6th**, red, born Dec. 25, 1920, calved Oct. 16, 1924, s. Moresby Royalist 157861, d. Water Lily 4th by Duke of Whitehall 136251
 765 **II (210)**—**WILLIAM WOOP**, Clawthorpe Hall, Burton, Westmorland, for **Rosebud** (Vol. 65, p. 1216) dark roan, born Dec. 1, 1918, calved Jan. 2, 1925, s. Smiling Cat 133640, d. Red Rosebud by Rosebery 117391
 763 **III (25)**—**J. M. STRICKLAND**, Bainesse Catterick, for 80579 **Bainesse Butterfly**, dark roan, born March 1, 1921, calved Nov. 10, 1921, s. (udham Mot 111111, d. Brandy s. Butterfly 6th by Staff Officer 133741
 764 **E. N.**—**HON. MRS. BRUCE WARD**, Godwin Ashford, Kent, for **Godinton Alt**.
H. C.—759

Class 110.—Shorthorn Heifers (in milk), born in 1922

- 767 **I (215, & Champion)**—**SIR CECIL HUBB BART**, Bayton Manor, Godford, Wilts., for 44438 **Princess Margaret**, roan, born Jan. 5, calved Oct. 19, 1924, bred by T. Deane Willis, Stratton Park, Stratton, Margarets, s. Billington Snowstorm 154027, d. Princess Mary by Muskall Mar 112632
 771 **II (210)**—**LORD SHIRBORNE**, Sherborne Park, Northleach, for 42352 **Golden Lassie**, roan, born June 19, calved Jan. 4, 1925, s. Hindley Snowstorm 142969, d. 3609 Notlaw Pure Gold 23rd by Notlaw Luck 138276
 768 **III (25)**—**JAMES DOUGLAS FLETCHER**, Rosehaugh, Avoch, Ross-shire, for 30350 **Rosehaugh Clipper 5th**, dark roan, born May 5, calved Jan. 28, 1925, s. Millhills Macbeanter 137773, d. Rosehaugh Clipper by Lieutenant Cruickshank 116230
 772 **E. N.**—**J. H. TOPPIN**, Musgrave Hall, Skelton, Cumberland, for **Skelton Bracelet**.
C.—770

Class 111.—Shorthorn Heifers, born in 1923

- 785 **I (215, & E. N. for Champion)**—**SIR HERBERT J. ION BART**, Bletchley Park, Bletchley, for 51506 **Vanity**, roan, born Feb. 3, s. Balcarin Royal Diamond 160962, d. Vanity Fair by Prince, Rudolph 117072
 781 **II (210)**—**GEORGE HARRISON**, Gainford Hall, Darlington, for 40691 **Gainford Pauline 11th**, roan, born April 9, s. Collynle Challenger 14803, d. Gainford Pauline 4th by Collynle Mandarin 119552
 774 **III (25)**—**FRED ALLSON**, Lilac Farm, Yedingham, Heslerton, Milton, for 45103 **Yedingham Mina 2nd**, dark roan, born Feb. 25, s. Allerton Standard 160624, d. 955 Yedingham Mina by Doune Asterisk 130633
 780 **IV (24)**—**JAMES DOUGLAS FLETCHER**, Rosehaugh, Avoch, Ross-shire, for 48677 **Rosehaugh Broadhocks 10th**, red, born April 21, s. Dunplass Dauntless 171218, d. Suddie Broadhocks 2nd by Lieutenant Cruickshank 11620
 773 **V (23)**—**HIS MAJESTY THE KING**, The Royal Farms, Windsor, for 44923 **Windsor Carnation**, dark roan, born April 22, s. Edgote Ilatter 125374, d. Hathaway 7th by Proud Victor 103447
 778 **E. N.**—**CAPTAIN SYDNEY DENNIS**, Down Ampney House, Cricklade, for **Lutton Moss Rose 3rd**.
H. C.—786 **C.**—779, 783

Class 112.—Shorthorn Heifers, born on or between January 1 and March 31, 1924.

- 791 **I (215)**—**H. R. H. THE PRINCE OF WALES, K.G.**, Home Farm, Stoke Climsland, Cornwall, for **Climsland Orange Blossom 3rd**, red, born March 3, s. Collynle Herald 179685, d. Orange Flower 26 by Butterfly Knight 130029
 809 **II (210)**—**THE DUKE OF NORTHUMBERLAND, K.G.**, Alnwick Castle, Northumberland, for 65766 **Alnwick Rose of Roxburgh**, white, born March 22, s. Aldsworth Duke 123844, d. Rose of Surrey (Vol. 60, p. 981) by Leading Lavouette 112263
 801 **III (25)**—**SIR BERNARD GREENWELL BART**, Marden Park, Woldingham, Surrey, for 61953 **Marden Crocus**, red and little white, born Jan. 17, s. Balcarin Warden 168707, d. 8799 Godinton Crocus by Dewlap s. Royal Sovereign 125170
 792 **IV (24)**—**H. R. H. THE PRINCE OF WALES, K.G.**, for **Climsland Princess Royal 4th** 57511, red roan, born Jan. 30, s. Collynle Herald 179685, d. 9646 Climslund Princess Royal 2nd by Christian King 147900

¹ Champion Prize of £20 given by the Shorthorn Society, for the best Cow or Heifer in Classes 109 to 113. A Silver Medal is given by the Shorthorn Society to the Breeder of the Champion Cow or Heifer.

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804 V (#3)—RALPH W JORGENSEN, The Lerry Farm, South Cerney, Cirencester, for 63177 *Cerney Pink 5th*, red, born Feb 12, bred by Mrs G F Hutchinson, barsden, Kingham, Odon, s Ldgote Albion 142205, d Village Pink (Vol 63, p 946) by Village Benjamin 123423

788 R. N.—HIS MAJESTY THE KING, The Royal Farms, Windsor, for Windsor Luxury 2nd. H C—808 C—797, 805, 806

Class 113.—Shorthorn Heifers, born on or between April 1 and December 31, 1924.

822 I (#15)—L V GAILAND Greenbank, The Towns Hayle, Cornwall, for 61573 *Towan Nonpareil*, red, born April 2, s Bapton Prince George 168891, d 40961 Southmore Nonpareil by Royal Style 13107

818 II (#10)—RICHARD CORNELIUS, Lutwyche Hall, Much Wenlock, Salop, for 57815 *Lutwyche Eileen 2nd*, red roan born April 5, s Lutwyche Mint 173747, d 31574 *Kiliza Lady 3rd* by Balcurn White Eagle 153591

826 III (#5)—JOHN HEATON, O B K, Low Stutforth Hall, Barnard Castle, for 62424 *Startforth Augusta*, white, born April 23, s Pethpar, Ash Lord 183756, d 37666 Balthayock Augusta 32nd by Norseman of Huvietoun 1508.0

814 IV (#4)—HIS MAJESTY THE KING, The Royal Farms, Windsor, for 57500 *Windsor Butterfly*, dark roan, born April 20, s Royal Gauntlet 159047, d 27874 *Butterfly of Durno* by Millhills Sunbeam 157774

832 V (#3)—J M STRICKLAND, Bainesse, Catterick, for 68071 *Bainesse Mynne 6th*, roan, born May 6, s Braudby's Lord Ramsden 7th 169452, d 3518 *Settrington Mysle* by Settrington Premier 133502

825 R. N.—ARTHUR GREEN, Denton, Ben Rhydding, Leeds, for Denton Princess

Herefords.

Class 114.—Hereford Bulls, born on or before August 31, 1922.

839 I (#15, R. N. for Champion,¹ & R. N. for Champion²)—WILLIAM GRAY LAWYER, Withington Court Hereford for Aldersend Nonsuch 38470 born Jan 20, 1920, bred by W Griffiths, Wilton Oaks, Llangington, Herefordshire, s Aldersend Wilton 34542, d Nantle by Starlight 28754

843 II (#10)—DAVID JENKIN, Boyerton Place Llantwit Major, Cardiff for Energy 40898, born Jan 8 1921 bred by S Robinson The Ovals Kingston, Herefordshire, s Mansel Handynon 33904, d Silk 2nd by Gainsborough 380

836 III (#5)—EDWARD LIVING (ROOK, Woodlands Hall Bridgnorth for Priory Resolute 41505, born Jan 7, 1921 bred by L Blackstad, Priory Farm, Clifford, s Resolute 30537 d Beauty 5th by Twyford Sultan 30840

835 IV (#4)—GEORGE H BRAY Dormington Court, Hereford, for Wickton Comrade 40297, born March 28 1920 bred by Newman Brothers Lower Wickton, Leominster, s Patchwork 34099 d Liveslatch Curly 5th by Lumbler 17588

840 V (#3)—S GODWIN Ivington Court Leominster for Wickton Overtime 44347, born March 12 1922 bred by Newman Brothers, Lower Wickton, Leominster, s Patchwork 34099 d Oyster Girl 3rd by Gay Laddy 3059

842 R. N.—CAITAIN B. I HINKES, Mansel Court, Hereford, for Enterprise. H C—838 C—841

Class 115.—Hereford Bulls, born on or between September 1, 1922, and August 31, 1923

853 I (#15)—ERNEST FEVING Chapel Farm Hmney Castle, Pershore for Pershore Smiles 44068 born Dec 28, 1922 s Ringer 31920, d Joy by Masterpiece 29896

852 II (#10)—CHARLES HENRY MORRIS, Weston Court, Pembridge, for Weston Papyrus 44336, born Jan 2, 1923, s Crossways Opalo 38930 d Pearl by Hardwick Regent 31573

850 III (#5)—W L LOCK The Town, Castle Incoome Ledbury, for Freetown Bruce 43713, born April 28 1923, bred by P F Bradstock, Freetown Tarrington Hereford, s Aldersend Naphr 3844, d Barbara by Goodenough 33710

855 R. N.—EDWARD WEBB & SONS (STOURBRIDGE), LTD, Astwood Farm, Stoke Works, Bromsgrove, for Colonel. H. C—851 C—848

Class 116.—Hereford Bulls, born on or between September 1 and November 30, 1923³

857 I. (#15, Champion,¹ & Champion²)—WILLIAM SMITH, The Leen, Pembridge, for Leen Lionel, born Nov 10, 1923, s Freetown Warrior 40971, d Leen Maria (Vol 52, p 627) by Concord 36419

859 II (#10)—H WESTON & SONS, The Bounds, Much Marcle, Dymock, for Bounds Ocean, born Oct 2, 1923, s Aldersend Licton 18467, d Cherry 22nd (Vol 52, p 686) by Bounds Justice 36106

858 III (#5)—JOHN WALKER, Knightwick Manor, Worcester, for Knightwick Searchlight, born Oct 9, 1923, s Fire Royal 39167, d Knightwick Spinae by Baton Hotspur 36631

¹ Champion Prize of £10 10s given by the Hereford Herd Book Society, for the best Bull in Classes 114 to 118

² Perpetual Silver Challenge Trophy, value One Hundred Guinea, given through the Hereford Herd Book Society, for the best Bull in Classes 114 to 118

³ Prizes given by the Hereford Herd Book Society

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Class 117.—Hereford Bulls, born on or between December 1, 1923, and February 29, 1924.

- 861 I (#15)—WILLIAM LVERALL, Shrewardine Castle, Shrewsbury, for **Eyton Page**, born Dec 23, 1923, bred by L. Craig Tanner, Lyton on Severn, s **Lion** 32709, d **Dyton** Sature 6th (Vol 51, p 672) by Prince Charming 29982
- 860 II (#10)—W H DONNF DAVIES The Pigeon House, Weston Beggard, Herefordshire, for **Dynam Monon** 44766, born Dec 12, 1923, bred by D Davies, M P, The Offices, Llandinam, Mont., s **Resolute** 2nd 39895, d **Mary** by **Dynam Masterman** 30491
- 866 III (#5)—CHARLES HENRY MORRIS, Weston Court Pembroke, for **Weston Pembroke**, born Dec 8, 1923, s **Treetown Warrior** 40971, d **Leen Mouse** (Vol 51, p 662) by **Armls** tice 35893
- 862 IV (#4)—H R GRIFFITHS, Little Tarrington, Hereford, for **Tarrington Marquis**, born Jan 25, 1924, s **Bounds Landmark** 40540, d **May Queen** (Vol 52, p 353) by **Alder** send **May King** 35843
- 870 R M.—EDWARD CRAIG TANNER, Lyton on Severn, Cross Houses, Salop, for **Eyton Paymaster**.
H C—865 C—863

Class 118.—Hereford Bulls, born on or after March 1, 1924

- 874 I (#15)—HENRY J DENT, Perton Court, Stoke L dith, Herefordshire, for **Perton Gunner**, born March 4 1924, s **Percentage** 3765, d **Perton select** 2nd (Vol 50, p 475) by **Eton Silver** 29093
- 881 II (#10)—WILLIAM SMITH The Icen, Iembridge, for **Freetown Rambler** 44879 born April 1, 1924 bred by P E Bradstock, Ireetown, Iarrington, s **Russell** 1 airfax 44812 d **Ven Yus** by **Goodnough** 33710
- 873 III (#5)—DAVID PERCIVAL BARNETT, Walterston, Llancarfan Cowbridge, for **Master Robert**, born April 1, 1924, s **Walterston Sam** 38309, d **Dolesome** (Vol 50, p 870) by **Sir Sam** 33131
- 879 IV (#4)—W A NEWMAN, Tillington Court Farm Burghill, Hereford, for **Wickton Andrew**, born March 1, 1924, s **Wickton Perfect** 44249, d **Curly** 3rd (Vol 52, p 506) by **Patchwork** 34099
- 878 V (#3)—W I LOCK The Town, Castle Froome, Iedbury, for **Town Charmer**, born April 17 1924, s **Congo** 4214 d **Betty** (Vol 49, p 639) by **Bodenham Herald** 31273
- 880 R N—JOHN PARR, Burton Iinton, Ross, Herefordshire, for **Burton Cornerstone**
H C—875 C—883

Class 119.—Hereford Cows or Heifers (in milk), born on or before August 31, 1922.

- 891 I (#15, & R N for Champion¹)—JAMES PRICE & SONS, Penmaes, Talgarth, for **Anxious** (Vol 52, p 553), born Feb 4, 1922, calved March 1, 1925, s **Leen Marplot** 37179 d **Penmaes Pride** by **Spartan** 34344
- 888 II (#10)—CECIL ROWE ENGLISH, Lvesbatch Court, Bishop's Irome, Worcester, for **Maymorn** (Vol 51, p 370), born Mar 29, 1916, calved Nov 24, 1924 bred by J Rowlands, The Skells, Malvern Link, s **Shdsley** 26480, d **Movina** by **Caroline** 28132
- 890 III (#5)—SIR DAVID B LEWELLYN, BART, The Court, St Iagans, Glam, **Crossways Opal** (Vol 53 p 681) born Jan 6, 1919, calved April 12 1925, bred by Owen Williams, Crossways, Cowbridge, s **Kliger** 31920, d **Sheepcote Opal** by **Milton** 25571
- 886 R N—DAVID PERCIVAL BARNETT, Walterston, Llancarfan, Cowbridge, for **Lux**
H C—887

Class 120.—Hereford Heifers, born on or between September 1, 1922, and August 31, 1923

- 902 I (#15, & Champion¹)—SIR MAURICE LEVY, BART, Great Glen, Leicester, for **Glen Dasher**, born March 4, 1923, s **Bounds kyrie** 38638, d **Nan** (Vol 53, p 433) by **Langed** Dandy 33892
- 893 II (#10)—HIS MAJESTY THE KING The Royal Iarms, Windsor, for **Lavender Lass** (Vol 54, p 144), born Jan 5, 1923, s **Lulsley statesman** 37327, d **Lovely** 2nd by **Paymaster** 32892
- 898 III (#5)—F WALTERS DAVIES, The Cefn Farm, Pontypridd, for **Cefn Rosemary** 7th, born Feb 1, 1923, s **Pvons Victor** 37791, d **Rosemary** 5th by **Clive Hope** 3rd 36374
- 900 IV (#4)—LOCK & SHEW, Paunton Court, Bishop's Irome, Worcester, for **Paunton Flo** (Vol 54, p 421), born Feb 9 1923, s **Bushman** 38742, d **Kella** by **Gamester** 28308
- 896 V (#3)—CHARLES L COXON, Milton, Pembroke, for **Marstow Betty** (Vol 54, p 453), born Jan 2, 1923, bred by C Moreland Marstow, Ross-on Wye, s **Bounds Justice** 36106, d **Piperoll** by **Newton Major** 32843
- 895 R N—CAPTAIN F B BIBBY, Hardwicke Grange, Shrewsbury, for **Clive Light** 4th.
H C—897, 899 C—907

Class 121.—Hereford Heifers, born on or between September 1 and November 30, 1923²

- 910 I (#15)—T L WALAFR, The Cedars, Broadwas on Teme, for **Ankerdine Fashion**, born Sept 26, 1923, s **Oddfellow** 39680, d **Ankerdine Famous** (Vol 52, p 667) by **Bodenham** Goodwood 36043

¹ Champion Prize of £10 10s given by the Hereford Herd Book Society for the best Cow or Heifer in Classes 119 to 122

² Prizes given by the Hereford Herd Book Society

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- 909 **II. (#10)**—**CHARLES ROWE ENGLISH**, Livesbatch Court, Bishop's Frome, Worcester, for **Rose Harmony 2nd**, born Sept 8, s Planaltter 37708, d Rose Harmony (Vol 51, p 369) *by* Bellator 32217
- 909 **III (#5)**—**ERNEST STEVENS**, Chapel Farm, Elmley Castle, Pershore, for **Pershore Castanetta**, born Oct 22, s Bounds Keepsake 38622, d Leen Timbrel (Vol 50, p 913) *by* Mariner 28468
- 911 **R. N**—**H WESTON & SONS**, The Bounds, Much Marcle, Dymock, for **Bella 7th**.

Class 122.—Hereford Heifers, born on or after December 1, 1923.

- 913 **I (#15)**—**HIS MAJESTY THE KING**, The Royal Farms, Windsor, for **Peggy**, born Feb 29, 1924 s Lukley Statesman 37327, d Primula (Vol 50, p 329) *by* Paymaster 32892
- 917 **II. (#10)**—**THOMAS HAYWOOD**, Broom Park, Cleobury Mortimer, for **Lady Lilian 2nd**, born Jan 4, 1924, s Froubadour 2nd 41937, d Lady Lilian (Vol 52, p 322) *by* Diamond 38978
- 912 **III (#5)**—**HIS MAJESTY THE KING**, for **Sumac**, born March 9, 1924, s Lukley Statesman 37327 d Envy (Vol 50, p 1010) *by* Admiral Beatty 31222
- 922 **IV. (#4)**—**JOHN WALKER**, Knightwick Manor, Worcester, for **Knightwick Delia**, born Dec 29 1923 s Aldersend Prefect 38474, d Brampton Garland 9th (Vol 52, p 622) *by* Brampton James 33412
- 915 **R. N**—**CAPTAIN I B F. BIBBY**, Haidwicke Grange, Shrewsbury, for **Clive Polly 5th**. **H.C**—914

Sussex.

Class 123.—Sussex Bulls, born in or before 1923

- 923 **I (#15, Champion,¹ & Champion²)**—**J RAYNER BITTS**, Greenhill Otham Maidstone, for **Otham Chevalier 5408** born June 17 1921 s Ticehurst Chevalier 6th 4854, d Ockham Lumpy 4th 15597 *by* Ockham Prince 3367
- 925 **II (#10)**—**CAMPBELL NEWINGTON**, Oakover Ticehurst Sussex for **Oakover Lad 18th** 5819 born April 27, 1922, s Mabledon Lad 4326 d Favourite 21st 13061 *by* Orchard mains Squire 2475
- 924 **III (#5)**—**J RAYNER BITTS** for **Ridge Sundial 5860** born May 11 1923 bred by G R Bennett Old House West Hoathly, s Sundridge 4573, d Lock Heedless 6th 15992 *by* North Chapel Premier 2645

Class 124.—Sussex Bulls, born in 192

- 931 **I (#15, R. N for Champion,¹ and R. N for Champion²)**—**CAMPBELL NEWINGTON**, Oakover, Ticehurst, Sussex, for **Oakover Lad 23rd** 6256 born Jan 2, s Mabledon Lad 4326, d Favourite 21st 13061 *by* Orchard mains Squire 2475
- 930 **II (#10)**—**I O JOHNSON**, Peppers, Ashurst Steyning for **Kings Barn Sunbriht** 6213 born Jan 5 s Sundridge 4573, d Avisford Heedless 3rd 19881 *by* Red Miller 4918
- 932 **III (#5)**—**MAJOR J R WARREN**, Handcross Park Haywards Heath for **Handcross Lad** 6288 born Jan 2, s Oakover Lad 10th 5340, d Dale Gracful 1st 19264 *by* Brownings Price 7th 4675

Class 125.—Sussex Cows or Heifers (in milk), born in or before 1922

- 934 **I (#15, & Champion²)**—**ELLICE EZRA**, Lock, Partridge Green, Sussex, for **Drungewick Daisy 16th** 19107, born Feb 26, 1920 calved Jan 15, 1925, bred by the late E L Braby, Drungewick Manor Rudgwick, Sussex, s Drungewick A One 17th 4582, d Drungewick Daisy 14th 16712 *by* Drungewick Marksman 3rd 3274
- 933 **II (#10)**—**J RAYNER BITTS**, Greenhill, Otham Maidstone for **Otham Lady 2nd** 19718, born June 21 1921, calved May 14 1925, s Ticehurst Chevalier 6th 4854, d Sheldwich Lady 33rd 16044 *by* Nash Premier 6th 3446
- 935 **III (#5)**—**L O JOHNSON**, Peppers, Ashurst, Steyning for **Ewhurst Crystal 20478**, born Feb 10 1922, calved April 1 1925 bred by H W Coleman, Belgate, s Thurston Red Rover 5443, d Brownings Crystal 1st 16280 *by* Apsley Albert 2nd 2706

Class 126.—Sussex Heifers, born in 1923.

- 938 **I (#15, & R. N for Champion²)**—**ELLICE EZRA**, Lock, Partridge Green, Sussex, for **Ridge Charmer 2nd** 21059, born Jan 28, bred by G R Bennett, Old House, West Hoathly, Sussex, s Avisford Prince 5484, d Sheldwich Knelle Charmer 17851 *by* Nash Masterpiece 2nd 3723
- 939 **II (#10)**—**L O JOHNSON**, Peppers, Ashurst, Steyning for **Ridge Bouncing Beauty 2nd** 21058, born Jan 27, bred by G R Bennett, West Hoathly, s Ridge Eclipse 5405, d Lynwick Beauty 24th 16663 *by* Lynwick Rufus 2nd 3363
- 936 **III. (#5)**—**J RAYNER BITTS**, Greenhill, Otham, Maidstone, for **Otham Lumpy 5th** 21067, born April 6, s Ticehurst Chevalier 6th 4854, d Ockham Lumpy 4th 17855 *by* Golden Noble 9th 3877
O—937, 940

¹ Perpetual Silver Challenge Trophy, value One Hundred Guineas, given through the Sussex Herd Book Society for the best Bull in Classes 123 and 124

² Champion Silver Medal given by the Sussex Herd Book Society for the best Bull in Classes 123 and 124

³ Champion Silver Medal given by the Sussex Herd Book Society for the best Cow or Heifer in Classes 125 to 127

Class 127.—Sussex Heifers, born in 1924

- 945 I. (#15)—**FLICE DEEA**, Lock, Partridge Green, Sussex for **Look Daisy** 21916, born Feb 12, s Jacobite 5116, d Drungewick Daisy 16th 19107 by Drungewick A One 7th 4582
- 949 II. (#10)—**MAJOR J R WARREN**, Handcross Park, Haywards Heath, for **Handcross Daisy** 1st 22380, born 1cb 7, s Oakover Lad 10th 5340, d Huggetts Daisy 17th 16740 by Shillingee Gold 7th 2681
- 946 III. (#5)—**LORD LECONFIELD**, Petworth House Petworth Sussex for **Petworth Daisy** 22157 born Jan 10, s North Chapel President 2nd 5126, d Lynwick Daisy 16th 16066 by Dogwood 3227
H. C.—947 C—948

Welsh.

Class 128.—Welsh Bulls, born on or before November 30, 1922

- 952 I. (#15, & Champion ¹)—**R M GREAVES**, Wern Portmadoc for **Wern Sentry** 1542, born Sept 20 1919, s Snowdon Idwal 1192 d Wern Idwal 1.30 by Duke of Wellington 294
- 957 II. (#10)—**LORD PENRYN**, Penrhyn Castle Bangor for **Harold of Penrhyn** 1984 born Feb 2 1921, s Musketeer of Penrhyn 1140, d Hector 3rd of Penrhyn 2311 by Madryn Cawr 488
- 951 III. (#5)—**C H LLOYD EDWARDS**, N. Heron Pwllheli for **Snowdon Caradoc** 1772, born April 13 1920 bred by the University College of North Wales, Bangor, s Snowdon Imperor 1193, d Snowdon Rose 1923 by Wern Imperor 50
- 956 IV. (#4)—**SIR EDWARD NAYLOR IRYIAID**, Nantclwyd Hall Ruthin, for **Ronald of Nantclwyd** 2359, born June 16 1922, s Bodolwa Botha 1267, d Penmynydd Mabli 3601 by Penmynydd Hywel 1128
H. C.—954

Class 129.—Welsh Bulls, born on or between December 1, 1922, and November 30, 1923 ²

- 970 I. (#15, & R N for Champion ¹)—**UNIVERSITY COLLEGE OF NORTH WALES** College Farm, Aber, Bangor, for **Snowdon Brân** 2645 born July 11, 1923, s Madryn Laddie 1403, d Brynclun Nynw 4235 by Bodolwa Volunteer 1273
- 971 II. (#10)—**ARTHUR W WILLIAMS**, Waen Iŷa Dolgellley for **Wael Gordon**, born Aug 10, 1923 s Northgate Boy 2040, d Wael Martha 871 by Rhodorn 1145
- 969 III. (#5)—**W T PRYTHORCH**, Iryn Gof Llanfair P G, Anglesey for **Cefnamwlech Champion** 2442 born Feb 7, 1923, bred by Major W H Wynne Iŷa Cefnamwlech, Tydwellog, s Bodrick Avro 1278, d Penllyn Sally 1951 by Vaelus Mluden 517
- 963 IV. (#4)—**DINAM STATIS COMPANY**, Llandinam Hall Llandinam, Mont, for **Dinam Lancer**, born Aug 26, 1923, s Dinam Chief 1618, d Glasfryn Linda 4053 by Glynllivon Captain 996
H. C.—966

Class 130.—Welsh Bulls, born on or between December 1, 1923, and June 30, 1924 ²

- 973 I. (#15)—**R M GRIEVES**, Wern Portmadoc for **Wern Duke**, born Dec 11, 1923, s Wern Sentry 1542 d Wern Irene 1281 by Duke of Wellington 294
- 972 II. (#10)—**J ROSLAND GRAHAM** Clwyd Hall Ruthin for **Gwynnyl Triumph**, born Dec 2 1923, bred by W T Prytherch Bryn Gof, Llanfur P G, s Wern Triumph 1826, d Myfanwy Gwynnyl 2nd 4.6 by Mynach Du 1186
- 977 III. (#5)—**NORMAN L MOON**, Ilandrillo Merlonthshir for **Corwen Messenger**, born March 6, 1924, s Ty Croes Volunteer 2129, d Black Bear 4th 2022 by Nanhoron Maxim 606
- 978 IV. (#4)—**MAJOR LEO J W PLATT**, Madryn Park Aber, North Wales for **Madryn Glaxo**, born Feb 14, 1924, s Rampart of Penrhyn 1752 d Madryn Nancy 3rd 5331 by Rhdygarnedd General Byng 1179
- 975 V. (#3)—**S H JENKS**, Pilsdon Manor, Bridport for **Pilsdon Boy**, born April 27, 1924, s Ty Croes Llewelyn 2376, d Bute Min Arfon 3174 by Stanley 954
- 981 E N—**UNIVERSITY COLLEGE OF NORTH WALES**, College Farm, Aber, Bangor, for **Snowdon Llanter**.
H. C.—982, 983

Class 131.—Welsh Bulls, born on or after July 1, 1924.

- 985 I. (#15)—**S H JENKS** Pilsdon Manor, Bridport, for **Pilsdon Baldwin**, born Aug 13, s Ty Croes Llewelyn 2376, d Penrhos Branwen 4640 by Nipper of Penrhyn 1131
- 980 II. (#10)—**O PARRY JONES**, Plas Lechylched Valley Anglesey for **Plas Samson**, born Aug 8, s Plas Yswaln 2082 d Plas Gwennllun 2nd 5143 by Snowdon Lmlyn 1477
- 987 III. (#5)—**F C MINOFRIO**, Haulfryn Home Farm Aberystoch, for **Haulfryn King**, born Oct 7, s Puntygwafr King 2346, d Puntygwafr Primrose 4127 by Bachellyn Goalkeeper 1112
H. C.—988

¹ Champion Prize of £5 given by the Welsh Black Cattle Society for the best Bull in Classes 128 to 131

² Prizes, except fourth and fifth given by the Welsh Black Cattle Society

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Class 132.—Welsh Cows (in milk), born on or before November 30, 1921.

- 993 I (#15, & R. N. for Champion¹)—S. H. JENES, Pilsdon Manor, Bridport, for Pilsdon Mar 2966, born March 28, 1916, calved Nov. 7, 1925, bred by Vaynol Trustees, Vaynol Park, Bangor, s. Welsh Imperator 608, d. Mwynig 7th 1903 by Vaynol Duke 397
- 999 II (#10)—I. C. MINOPRIO, Haulfryn Home Farm, Abersoch, for Puntygwar Primrose 4127, born May 22, 1919, calved Oct. 7, 1924, bred by J. W. Holland, Cwm, Abersoch; s. Bachelllyn Gwalkeper 1113, d. Molly 6th of Penrhyn 7927 by Nanhoron Model 608
- 994 III (#5)—D. R. LLOYD, Llyslew Gaerwen, for Castell Megan 4022, born March 17, 1921, calved April 5, 192, bred by Idwird Gabriell, Castell Mawr, Brynecrug, Llowyn, s. Bwlchgwyn Gawn 1291, d. Beauty 4011 by Castell King 707
- 1004 IV (#4)—MAJOR JOHN (CHARLES) WINNI IINCH, Voelas, Bettws y Coed, for Voelas Thynne 4794, born June 8, 1920, calved Feb. 15, 1925, s. Admiral 1144, d. Voelas Patience 3830 by Voelas Llowelwyn 556
- 998 V (#3)—SIR GEORGE A. L. I. GERVIS MEYRICK, BART, Hinton Admiral Christchurch, Hants, and Bodorgan Anglesey, for Mar 2nd 1631, born Nov. 10, 1912, calved Oct. 24, 1924, bred by Lord Penrhyn, Penrhyn Castle, Bangor, s. Duke of Wellington 294, d. Mar 368
- 995 E. N.—D. R. LLOYD, for Waen Martha 2nd.
H. C.—1002

Class 133.—Welsh Heifers (in milk), born on or between December 1, 1921, and November 30, 1922²

- 1007 I (#15)—J. CR. LEAND GRAHAM, Lwyd Hall Ruthin, for Cwm Dol 5823, born Feb. 23, 1922, calved Dec. 10, 1924, bred by J. W. Holland, Cwm, Abersoch, s. Cwm Chamberlain 1308, d. (in May 433) by Lord Roberts 921
- 1010 II (#10)—R. A. C. PUGH VOELAS, Glandyff for Mwynig of Halford 5652, born March 15, 1922, calved Dec. 1924, bred by Allen & Rogers Halford Farm, Craven Arms, s. Lucy of Penrhyn 1616, d. Iregarn Mwynig 2nd 2838 by Rhydygarnedd Cawryn 649
- 1006 III (#5)—RICHARD JOHN GEORGE LILWYN, Chwilog Carna ymmlure for Hendre Dol 5687, born March 17, 1922, calved Dec. 1924, bred by G. G. Davies, Hendre Bach, Clynung (Jamaica) s. Bomb of Penrhyn 1136, d. Hendre Bach Gwladys 2545 by Rhydygarnedd Cawryn 649
H. C.—1009 C.—1003

Class 134.—Welsh Heifers, born on or between Decem^r 1, 1922, and November 30, 1923

- 1032 I (#15, & Champion¹)—MAJOR JOHN (CHARLES) WINNI IINCH Voelas Bettws y Coed, for Voelas Wish 7150, born May 1, 1923, s. Plas y bryn Champion 1744, d. Voelas Ruby 3908 by Stamp of Penrhyn 1132
- 1027 II (#10)—SIR EDWARD NAYLOR LEYLAND, Nantclwyd Hall, Ruthin, for Violet of Nantclwyd 6866, born Sept. 26, 1923, s. Bodelwa Botha 1267, d. Madryn Gwennhan 5th 4492 by Jack Johnson 799
- 1024 III (#5)—SIR GEORGE A. L. T. GERVIS MEYRICK, BART, Hinton Admiral, Christchurch, Hants, and Bodorgan, Anglesey, for Bodorgan Blodwen 6930, born Jan. 17, 1923, s. Penmynydd Caswallon 2062, d. Bodelwa Shan 3rd 4158 by Bodelwa Volunteer 1273
- 1025 IV (#4)—F. C. MINOPRIO, Haulfryn Home Farm, Abersoch, for Puntygwar Ethel 6649, born Feb. 8, 1923, bred by J. W. Holland (in Abersoch), s. Cwm Chamberlain 1908, d. Puntygwar Dastodil 4128 by Bachelllyn Iurk 125
- 1023 V (#3)—LORD STANLEY OF ALDERLEY, Penrhos Holyhead, for Angharad 7153, born Dec. 20, 1922, s. Bodelwa Testa 1574, d. Mona 0.5 by Nanhoron President 604
- 1021 E. N.—LORD HARRISON, Glyn, Llanarn, for Glyn Nymph
H. C.—1019

Class 135.—Welsh Heifers, born on or between December 1, 1923, and June 30, 1924

- 1038 I (#15)—O. I. HUGHES Bodelwa by Croes, Anglesey for Bodelwa Nella, born Jan. 7, 1924, s. Penmynydd Caswallon 2062, d. Bodelwa Nora 2nd 5031 by Bodelwa Volunteer 1273
- 1044 II (#10)—F. C. MINOPRIO, Haulfryn Home Farm, Abersoch, for Glandfraw Martha, born Feb. 18, 1924, bred by J. D. Williams Tyddyn Hwidd, Anglesey, s. Talliesin 1778, d. Martha of Penrhyn 2889 by Madryn Cwr 448
- 1040 III (#5)—S. H. JENES, Pilsdon Manor, Bridport, for Pilsdon Bernice, born Dec. 22, 1923, s. Minal King 2260, d. Lirlys 3013 by Nanhoron President 604
- 1040 IV (#4)—MAJOR JOHN (CHARLES) WINNI IINCH, Voelas, Bettws y Coed, for Voelas Zoe, born March 21, 1924, s. Plas y bryn Champion 1744, d. Voelas Rowan 3906 by Stamp of Penrhyn 1132
- 1047 V (#3)—LORD STANLEY OF ALDERLEY, Penrhos, Holyhead, for Penrhos Eirwen, born June 7, 1924, s. Owain Glyndwr 2046, d. Penrhos Menora 4648 by Cadwaladr 1293.
- 1042 E. N.—D. R. LLOYD, Llyslew, Gaerwen, Anglesey, for Llyslew Martha 2nd.
H. C.—1036

¹ Champion Prize of £5 given by the Welsh Black Cattle Society for the best Cow or Heifer in Classes 132 to 136

² Prizes given by the Welsh Black Cattle Society.

Class 136.—Welsh Heifers, born on or after July 1, 1924.

- 1059 I. (#15).—MAJOR JOHN CHARLES WYNN KINCH, Voelas, Bettwa-y-Coed, for Voelas Ysode, born Aug 21, s. Plasbryn Champion 1744, d Voelas Uwchaled 5622 by Admiral 1144
- 1053 II. (#10).—S H JENKS, Pilsdon Manor, Bridport, for Pilsdon Brenda, born Dec 24, s Trusty of Penrhyn 2372, d Tyddyn Mwynig 6119 by Bachellyn Haig 1847.
- 1060 III. (#5).—MAJOR JOHN CHARLES WYNN KINCH, for Voelas Ystrad, born Aug 17, s Voelas Viceroy 2381, d Voelas Violet 6439 by Admiral 1144
- 1054 IV. (#4).—MISS DURGAIN LORT, Castlemal, Carnarvon, for Castlemal Dusky, born July 4, s Castlemal Nelson 2439, d Castlemal Menal Lodes by Cambria Blodgorn 1296.
H. C.—1056

Class 137.—Welsh Cows or Heifers (in-milk), any age, whose milk yield has been officially recorded and checked.¹

- 1002 I. (#15 & Champion).—LORD PENRHYN, Penrhyn Castle, Bangor, for Hester 2nd of Penrhyn 2311, born June 11, 1914, calved May 29, 1925; s Madryn Cawr 488, d Voelas Hester 1242 by Lifonydd 417
- 992 II. (#10).—J CROSLAND GRAHAM, Clwyd Hall, Ruthin, for Bodrida Janet 4690, born March 19, 1920, calved Dec 5, 1924, bred by Hugh Williams, Bodrida, Gaerwen, s. Cynedda Gwynedd 1041, d Waen Janet 8144 by Waen Mascot 671
- 1000 III. (#5).—NORMAN I. MOON, Llandrillo, Merionethshire, for Elen Gwynedd 3453, born Oct 15, 1918, calved Oct 19, 1924, bred by Miss Jones, Gwredog, Rhosgoch, Anglesey; s Cynedda Gwynedd 1041, d Lllepeth Gwynedd 1345 by Cwyfan Bob 76.

Longhorns.**Class 138.—Longhorn Bulls, born in or before 1923.**

- 1061 I. (#15).—LORD DOVERDALE, Westwood Park, Droitwich, for Arbury Alexander 851, dark brindle, born Feb 12, 1921, bred by Sir Francis Newdegate, K.C.M.G., Arbury, Nuneaton, s Arbury Lieutenant 2nd 722, d Arbury Abronia by Arbury King 568
- 1062 II. (#10).—THE LORDS OF THE LATE WILLIAM HANSON SALE, Arden Hill, Artherstone, for Arden Warrior 806, brindle and white, born Oct 7, 1920, bred by the late W. H. Sale, s Whitacre Warrior 800, d Waterloo 18th by Stowe Marmion 709
- 1063 III. (#5).—W E SWINNERTON, Manor House, Over Whitacre, Birmingham, for Stuvichall Conquest 879, red brindle and white, born March 14, 1923; s Whitacre Conqueror 844, d Stuvichall Glad Eyes by Eastwell Evens 664
- 1064 R. N.—BERTRAM WORRALL, Steeple Aston, Oxford, for Whitacre Punch.

Class 139.—Longhorn Bulls, born in 1924.

- 1065 I. (#15).—J W SWINNERTON-WESTON, Over Whitacre House, Birmingham, for Arden Select, brindle and white, born March 3, bred by the late William Hanson Sale, Arden Hill, Atherstone; s Arden Warrior 806, d Croft Sunlight (Vol 10, p 25) by Poles Walter 687

Class 140.—Longhorn Cows or Heifers (in-milk), born in or before 1922.

- 1066 I. (#15).—LORD DOVERDALE, Westwood Park, Droitwich, for Putley Brilliant (Vol 10 p 23), dark brindle and white, born Dec 9, 1915, calved May 20, 1915, bred by J L and A Bilby, Putley, Ledbury, s Poles Czar 685, d Putley Beauty by Putley Triumph 549
- 1068 II. (#10).—ALFRED WHEELER, Chippinghurst, Cuddesdon, Oxford, for Lady Violet of Kent (Vol 11, p 22), brindle and white, born April 8, 1918, calved June 22, 1925, bred by H B Parsons Eastwell, Ashford, Kent, s Admiral 632, d Violet of Dersingham by King of Eastwell 736
- 1067 III. (#5).—THE LORDS OF THE LATE WILLIAM HANSON SALE, Arden Hill, Atherstone, for Lady Woodbine of Kent (Vol 12, p 22), brindle and white, born July 4, 1919, calved June 17, 1925, bred by the late W. H. Sale; s Duke of Kent 771, d Lady Waterloo 2nd of Kent by Eastwell Eagle 500
- 1069 R. N.—ALFRED WHEELER, for Putley Edith 4th.

Class 141.—Longhorn Heifers, born in 1923 or 1924.²

- 1074 I. (#15).—J W SWINNERTON-WESTON, Over Whitacre House, Birmingham, for Sunrise of Chippinghurst (Vol 13, p 27), red and white, born Jan. 13, 1923, bred by Alfred Wheeler, Chippinghurst Manor, Oxfordshire, s Chippinghurst Cricket 811, d Sunrise of Studley by Eastwell Energy 732
- 1072 II. (#10).—LORD DOVERDALE, Westwood Park, Droitwich, for Westwood Kathleen (Vol 13, p 31), dark brindle and white, born May 9, 1923; s Arbury Alexander 851, d Putley Phyllis (Vol 2, p 23)
- 1075 III. (#5).—ALFRED WHEELER, Chippinghurst, Cuddesdon, Oxford, for Spice of Chippinghurst (Vol 13, p 26), red brindle and white, born Jan 16, 1923, s Chippinghurst Greatheart 812, d Susan of Studley by Eastwell Evens 664
- 1076 R. N.—BERTRAM WORRALL, Steeple Aston, Oxford, for Freda of Rousham.
H. C.—1073

¹ Prizes given by the Welsh Black Cattle Society.² Silver Salver given by the Welsh Black Cattle Society for the First Prize animal in Class 137³ Prizes given by the Longhorn Cattle Society

Aberdeen-Angus.

Class 142.—Aberdeen-Angus Bulls, born on or before November 30, 1922

- 1078 I. (#15, Champion,¹ Champion,² & R. N. for Champion.³)—WILLIAM T. ELGLEY, Corporal-landing, Cranswick, East Yorks, for *Geordie of Goodwood* 42825, born Feb 5, 1920, bred by the Duke of Richmond and Gordon, K.G., Goodwood, s Blackfriar of Bywell 40870, d Rose Mary of Goodwood 59032 by Benedict of Wicken 34077
- 1077 II. (#10).—VISCOUNT ALLENDALE, Dilston, Corbridge-on Tyne, for *Electricity of Bywell* 52341, born Jan 12, 1922, s Exbert 45895, d Liliana 59159 by Pride's Reviver 3660
- 1080 III. (#5)—LORD PENRHYN, Wicken Park, Stony Stratford, for *Wicken Idiom* 51697, born Feb 7, 1921, s Juno of Ballindalloch 39879, d Ideal Pride of Wicken 8th 60907 by Wicken Recluse 37110
- 1083 IV. (#4)—THE DUKE OF RICHMOND AND GORDON, K.G., Goodwood, Chichester, for *Perion of Goodwood* 51195, born Dec 18, 1920, s Harcombe of Goodwood 45573, d Ruth of Haynes 6th 43912 by Gay Boy of Danesfield 21967.

Class 143.—Aberdeen Angus Bulls, born on or between December 1, 1922, and November 30, 1923.

- 1092 I. (#15, R. N. for Champion,¹ R. N. for Champion,² & R. N. for Champion.³)—PATRICK ROBERTSON, Castlecrag, Nigg, Ross shire, for *Jupiter of Castlecrag* 55161, born April 12, 1923, s Lverest of Blatow 45862, d Joan of Castlecrag 57121 by Watchman of Ballindalloch 37101
- 1088 II. (#10).—SIR LEONARD BRASSEY, BART, M.P., Apethorpe, Peterborough, for *Black Jester* 54082, born Dec 10, 1922, s Black Knight of Auchterarder 45102, d Joanna of Apethorpe 66478 by Lelipse of Ballindalloch 43266
- 1086 III. (#5).—VISCOUNT ALLENDALE, Dilston, Corbridge on Tyne, for *Gerald of Bywell* 54929, born Dec 19, 1922, s Placeman of Bywell 48929, d Grace of Auchterarder 53067 by Romeo of Ballindalloch 29941

Class 144.—Aberdeen-Angus Bulls, born on or between December 1, 1923, and November 30, 1924.

- 1104 I. (#15)—HENRY C. VINNING, Willett, Bicknoller, Taunton, for *Viceroy of Willett* 56180, born March 15, 1924, s Lmoy of Candacrag 52463, d Velvet of Bywell 61612 by Proud George 3995
- 1094 II. (#10).—VISCOUNT ALLENDALE, Dilston, Corbridge-on Tyne, for *Grande of Bywell* 57159, born Jan 4, 1924, s Electricity of Bywell 52341, d Grace of Auchterarder 53067 by Romeo of Ballindalloch 29941
- 1101 III. (#5)—JOHN MCGREGOR PETRIE, Asleid, New Deer, Aberdeenshire, for *El Bonismo* 56621, born March 29, 1924, s Boxer of Ballindalloch 47409, d Evecphora 65554 by Earl Laura of Ballindalloch 39254
- 1103 IV. (#4).—THE HAI OLD TURNBULL, Lower House Farm, Llantwit Major, Cardiff, for *Ethos of Morich* 56885, born Feb 5, 1924, bred by George Cran, Morich, s Lassene of Bliton 45779, d Lthle of Morich 64308 by Lclipse 2nd of Morich 39277
- 1093 V. (#3).—H R H THE PRINCE OF WALES, K.G., Believer Farm, Princetown, Devon, for *Hayston Bright Eclipse* 57194, born Dec 15, 1923, bred by James Whyte, Hayston, Glamis; s Lclipse of Milford 52263, d Beauty 105th of Hayston 68458 by Perinthian 44320.

Class 145.—Aberdeen-Angus Cow or Heifers (in-milk), born on or before November 30, 1922.

- 1107 I. (#15, Champion,² & Champion.³)—J. J. CRIDLAN, Malsemore Park, Gloucester, for *Eve 3rd of Malsemore* 64328, born May 26, 1919, calved Dec 2, 1924, s Idyll of Malsemore 36219, d Eve of Malsemore 52161 by Brave Briton of Malsemore 30218
- 1108 II. (#10).—JOHN MCGRIE PETRIE, Asleid, New Deer, Aberdeenshire, for *Evabona* 72547, born Jan 29, 1922, calved Dec 9, 1924, s Boxer of Ballindalloch 47409, d Evecphora 65554 by Earl Laura of Ballindalloch 39254
- 1109 III. (#5).—CHARLES THOMAS SCOTT, Buckland Manor, Broadway, Worcs, for *Elluma 2nd of Buckland* 72514, born Dec 2, 1921, calved Dec 9, 1924, s Etruman of Bleaton 41498, d Liluma 3rd 42443 by Luthalito 21896.

H. C.—1112

Class 146.—Aberdeen Angus Heifers, born on or between December 1, 1922, and November 30, 1923.

- 1115 I. (#15).—J. J. CRIDLAN, Malsemore Park, Gloucester, for *Pride of Malsemore* 25th 73797, born Dec 28, 1922, s George E. of Ballindalloch 30611, d Pride of Malsemore 21st 69157 by Lverjilt of Malsemore 45868

¹ Perpetual Silver Challenge Trophy, value One Hundred Guinea, given through the Aberdeen Angus Cattle Society, for the best Bull in Classes 142 to 144

² Champion Gold Medal given by the English Aberdeen Angus Cattle Association for the best animal of the opposite sex to that of the animal awarded the Champion Gold Medal of the Aberdeen Angus Cattle Society in Classes 142 to 147

³ Champion Gold Medal given by the Aberdeen Angus Cattle Society for the best animal in Classes 142 to 147.

⁴ Silver Medal given by the Argentine Aberdeen Angus Association, for the best animal, bred by exhibitor, in Classes 142 to 147

- 1117 II (#10)—CHARLES DOXFORD, Old Burdon, New Seaham S O, Co Durham, for *Virtue* of Bywell 78363, born March 10, 1923, bred by Viscount Allendale, Dilston Hall, Corbridge-on Tyne, s Placeman of Bywell 48929, d Vita of Bywell 53639 by Juan Eric 80783
- 1120 III (#5)—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading, for *Queen* 4th of Basildon 74719, born May 13, 1923, s Baron Lros of Bleaton 47225, d Queen Alexandra 56835 by Gardafail of Ballindalloch 29056
- 1118 IV (#4)—WILLIAM F ELGLEY, Corpelanding, Cranswick, Last Yorks, for *Emily* of Corpelanding 73943, born Dec 1, 1922, s Geordie of Goodwood 48285, d Dame of Corps landing 66932 by Prince Toreador 44485

Class 147.—Aberdeen Angus Heifers, born on or between December 1, 1923, and November 30, 1924

- 1130 I (#15)—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading, for *Elite* 2nd of Basildon 78930, born Jan 26, 1924, s Baron Lros of Bleaton 47225, d Lylicric 58364 by Junior Eric 34725
- 1129 II (#10)—MAJOR J A MORRISON, D S O, for *Beryl* 2nd of Basildon 78927 born March 6, 1924, s Prince Francis 51322, d Bartering Maid 68764 by Watchman of Ballindalloch 87101
- 1127 III (#5)—THE EARL OF MEANBOROUGH, Methley Park Leeds for *Methley Mida* 76906, born Jan 25, 1924, s Rasque of Doonholm 51781, d Molly Mido 3rd of Newlands 69285 by Jaunty Eric 43880
- 1123 IV (#4)—VISCOUNT ALLENDALE, Dilston Corbridge on Tyne for *Elvira* of Bywell 75680, born Dec 17, 1923, s Electra of Bywell 55411 d Lively of Bywell 2nd 63883 by Lillcott 41313
- 1126 V (#3)—WILLIAM T ELGLEY Corpelanding Cranswick, Last Yorks, for *Erica* 3rd of Corpelanding 76255 born Dec 3 1923 s Geordie of Goodwood 48285, d Dalvey Erica 2nd 48929 by Benin of Ballindalloch 24149
Cup — J J CRIDLAN, Mahemore Park, Gloucester

Dun and Belted Galloways.

Class 148.—Dun Galloway Bulls, born on or before November 30, 1924 *

- 1135 I (#15)—THE MARQUIS OF BUTE & T, Dumfries House Old Cunnock, Ayrshire, for *Ochiltree Challenger* of Grimgrew 14D born Nov 20, 1921, s Mochrum Hawker 11D, d Ochiltree Maysie of Grimgrew 10D

Class 150.—Belted Galloway Bulls, born on or before November 30, 1924 *

- 1139 I (#15)—JAMES DOUGLAS BROWN, Knockbrex Kirkcudbright for *Knockbrex Pollux* 49B born Feb 22, 1921, s Knockbrex Viking 50B, d Knockbrex Lassy 153B by Bore land Champion 21B.

Class 151.—Belted Galloway Cows or Heifers (in milk), born on or before November 30, 1922

- 1143 I (#15)—JAMES DOUGLAS BROWN Knockbrex Kirkcudbright for *Knockbrex Lady Belinda*, 175B, born Aug 19 1920 calved April 16 1925, s Knockbrex Viking, 50B, d Knockbrex Empress 172B by Knockbrex First Choice 46B
- 1147 II (#10)—SIR IAN HAMPTON, Lullendin Farm, Last Grinstead for *Allington Dandelion* 118BD, born in 1918, calved Oct 22, 1924, bred by James Brown, Knockbrex, Kirkcud bright, s Knockbrex Certainty 44B
- 1149 III (#5)—JAMES WESTOLL, JUN, Glingerbank, Longtown Cumberland, for *Mark Dally* 206B, born May 8, 1918, calved Jan 14, 1925, bred by Major M Calmout Ireland
- 1144 B N—MAJOR IAN BULLOUGH, Drury Lane Farm, Redmarley, Newent, for *Eastington Furse*.

Galloways.

Class 152.—Galloway Bulls, born on or before November 30, 1924.

- 1153 I (#15)—D and J LITTLE, Whitehill, Corrie, Lockerbie, for *Punch* of Dalwyne 13727, born Feb 1, 1918, bred by John Blackie Lochfield, Dumfries, s Ideal of Thornhill 12342 d Jasmine 22794 by Matthew Mark 10726
- 1151 II (#10)—SIR ROBERT W BUCHANAN JARDINE, BART, Castle Milk Lockerbie, for *Warbond* 2nd of Corriehalls 14837, born March 16, 1921, bred by D and J Little, Whitehill, Corrie, Dumfrieshire, s Kennedy of Killearn 14106, d Nettie 3rd of Corriehalls 25993 by Matthew Mark 10726
- 1152 III (#5)—ROBERT GRAHAM, Chapel of Logan Half Morton Canonbie, for *Jovial* of Barnsoul 15593, born March 8 1924, bred by the Lords of the late Robert Haggas, Barnsoul, Shawhead, Dumfries, s Random 14390, d Lilla 3rd of Stepford 25723 by Jovial of Blackcombe 17716

* Silver Challenge Cup value £25, given through the English Aberdeen Angus Cattle Association for the most points awarded in a combination of entries in Classes 142 to 147, on the basis of four points for a 1st Prize, three points for a 2nd Prize, two points for a 3rd Prize, one point for a Reserve, two points for a Championship, and one point for a Reserve for a Championship

* Prizes given by the Dun and Belted Galloway Cattle Breeders' Association

Class 153.—Galloway Cows or Heifers (in milk), born on or before November 30, 1922.

- 1155 I. (#15)—ROBERT GRAHAM, Chapel of Logan, Half Morton, Canonbie, for *May Queen of Logan* 28083, born Feb 27 1921 calved Jan 20, 1925, s Quibbler 14051, d *May Queen* 3rd of Blackcombe 23392 t y Macdougall 3rd of Asklund 9229
 1154 II (#10)—SIR ROBERT W. BUCHANAN JARDINE, BART, Castle Milk, Lockerbie, for *Dahlia 2nd of Castle Milk* 27616 born Feb 5, 1920, calved Dec 8, 1924, s Norroy 2nd of Castle Milk 11777, d Dahlia of Castle Milk 22948 by Baron 10033
 1157 III (#5)—JOHN SCOTT, Drumhughry, b Dalbeattie, for *Drumhughry Cowslip* 32nd 28275, born Feb 15 1921 calved Jan 20 1925, s Cashier of Fairbreoch 13429, d Cowslip 29th of Drumhughry 25594 t y Hopewell of Morington 11933
 1156 R N—ROBERT JARDINE PATTERSON, Balgray Home Farm, Lockerbie, for *Joan 6th of Scroggiehall*.

Class 154.—Galloway Heifers, born on or between December 1, 1922, and November 30, 1923

- 1161 I (#15)—LADY DOROTHY HENLEY, Askerton (astle, Brampton, Cumberland, for *Zella of Askerton* 29116, born Jan 14, 1923, s Punch of Dalwyne 13727, d Florizelle of Craigneaton 21637 by Cuthbert 2nd 11696
 1162 II (#10)—D and J LITTLE Whitehill, Corrie, Lockerbie, for *Grand Dora 4th* 29175, born May 16 1923, s War Bond 2nd of Corriealls 14837, d Grand Lady 2nd 22989 by Miscot 10830
 1163 III (#5)—ROBERT JARDINE PATTERSON, Balgray Home Farm Lockerbie for *Queen of Stepford* 28952, born April 5, 1923, bred by David Brown, Stepford Dumfries, s Yardstick of Auchengassel 14774, d Lamie 4th of Stepford 23256 by Norroy of Castle Milk 11384
 1160 R N—LADY DOROTHY HENLEY, for *Annie 10th of Askerton*.

Class 155.—Galloway Heifers, born on or between December 1, 1923, and November 30, 1924

- 1166 I (#15)—ROBERT GRAHAM, Chapel of Logan Half Morton, Canonbie, for *Logan Lady* 14th 29713, born March 1, 1924, s Horace of Killearn 14820, d Logan Lady 6th 28460 by Owen of Barrie 12408
 1168 II (#10)—JOHN SCOTT, Drumhughry t y Dalbeattie, for *Drumhughry Charm* 29052, born March 3, 1924, s Barrie Renown 14866, d Drumhughry Gertie 4th 27188 by Cashier of Fairbreoch 13429
 1167 III (#5)—D and J LITTLE Whitehill, Corrie, Lockerbie, for *Nettie 15th of Whitehill* 29812 born Feb 25 1924, s Inverness Heir 10033, d Nettie 3rd 22987 of Corriealls by Matthew Muir 10726
 1165 R N—SIR ROBERT W. BUCHANAN JARDINE, BART, Castle Milk, Lockerbie, for *Dorrie 3rd of Castle Milk*.

Park Cattle.

Class 156.—Park Polled or Horned Bulls, born in or before 1924.

- 1160 I (#15)—THE DUKE OF BEDFORD, K G, Woburn Abbey Woburn, Bletchley, for *Woburn Matthias 2nd*, born April 26, 1923, s Faygate Matthias 71, d Woburn Buckingham 11th 490 by Woburn Perfection 83
 1170 II (#10)—JOHN H. SMILEY, Theydon Grove, Epping, for *Woburn Matthias 1*, born April 5, 1923, bred by the Duke of Bedford, K G, Woburn Abbey, s Faygate Matthias 71 d Woburn Buckingham 11th 492
 1175 III (#5)—MRS LANCASTER, Home Farm, Kelmarsh, Northampton, for *St Osyth Bard*, born Dec 15 1923, bred by Brig Gen K Kincaid Smith St Osyth's Priory, Clacton on Sea, s Rex 133, d Fichen 578 by Northrepp Woodwick 55
 1172 R N—HENRI J. CATON, Ranworth Hall, Norwich, for *Ranworth Regal*.
 H. C.—1170

Class 157.—Park Polled or Horned Cows or Heifers (in milk), born in or before 1922

- 1184 I. (#15)—MAJOR Q. D. GURNEY, Bawdeswell Hall, Norfolk, for *Bawdeswell Sporthie* 746, born Feb 28 1921 calved Jan 15, 1925, bred by Mrs R. Gurney, Northrepps Hall, Norwich, s Bawdeswell Briton 41, d Northrepps Spot 284
 1181 II (#10)—LORD DYNEVOR, Dynevor Castle, Llandillo, Carmarthenshire, for *Dynevor Evelyn* 410, born July 12, 1919, calved April 8, 1925, s Dynevor David 5, d Dynevor Nest 50 by Borderer
 1180 III (#5)—JOHN CATON, Woodbastwick Hall Norwich, for *Woodbastwick Black Gown* 802, born March 27, 1922, calved Jan 31, 1925, s Bawdeswell Plevna 43, d Woodbastwick Blackmail 2nd 352 by Woodbastwick Stokesby 2nd
 1186 IV (#4)—BRIG GEN K. KINCAID SMITH, St Osyth's Priory, Clacton on Sea, for *Jasper 3rd* 610, born April 11, 1919, calved May 16, 1925 bred by John Caton, Woodbastwick Hall, Norwich, s Woodbastwick Cumberland 2nd 63, d Woodbastwick Jasper 370
 1178 V (#3)—THE DUKE OF BEDFORD, K G, Woburn Abbey, for *Woburn Buckingham 15th* 706, born March 24, 1921, calved March 24, 1925, s Woburn Perfection 83, d Woburn Buckingham 3rd 158 by No 1 Chartley Bull
 1188 R N—J. C. TABOR, Giffords Hall, Stoke by Nayland, Suffolk, for *Pegtop 5th*.
 H. C.—1177, 1182 C—1185

¹ Prizes given by the Galloway Cattle Society.

Dairy Shorthorns.

Class 158.—*Dairy Shorthorn Bulls, born in or before 1922*

- 1190 I (*£15, & Champion*)¹—THE EARL OF BESSBOROUGH, Bessborough, Piltown, Co Kilkenny, for Bessborough Polonus 140950, roan, born Nov 10, 1917, s Bessborough Nestor 135121, d Bessborough Blonde 15th by Keir Goldfind 99249
- 1192 II (*£10, & R N for Champion*)¹—FRED T LILHUR, 140 Farm Pinkney Green, Maldenhead for Kelmescott Imperial 71st 182006 light roan born May 13, 1922, bred by R. W. Hobbs and sons, Kelmescott, Lechlade, s Crème de Menthe 119693, d Primula 121st by Royal Hampton 11th 99908
- 1191 III (*£5*)—MARK FENWICK, Abbotswood Stow on the Wold for Foxhill Royal Pearl 180901 roan, born May 25 1922, bred by Captain the Rt Hon J A FitzRoy, M.P., Foxhill West Haddon, Rugby, s Foxhill Prince Pearl 163300, d Royal Charlotte 3rd by Raleigh 144713
- 1194 IV (*£4*)—CAPTAIN THE RT HON J A FITZROY, M.P., Fox Hill, West Haddon, Rugby, for Foxhill Caryl 171702, roan, born Sept 22, 1921, s John Wild Lys 149616, d Clifford Lady Carl by Knight 131802
- 1199 V (*£3*)—ILFUT-COL. W M PRYOR, D.S.O., Lannock Manor, Weston, Stevenage, Herts for Lannock Hero 171240, red and little white, born May 2, 1921, s Crème de Menthe 119683, d Betty 24th by Cranford Regulator 119677
- 1196 R N—1 H HEALING, Chapel 1a Walton (Cardiff, Tewkesbury, for Lock Dairyman H. C.—1189, 1193, 1203 C—1135, 1198

Class 159.—*Dairy Shorthorn Bulls, born in 1923*

- 1229 I (*£15*)—J M STRICKLAND, Bainesse Catterick for Bainesse Lord Broadhooks 6th 186866 white, born July 11, s Bainesse Lord Ramsden 168660, d Brandsby's Lady Broadhooks 5th by Broadhooks Star 129947
- 1211 II (*£10*)—VISCOUNT ILLING, Newnham Paddox, Rugby, for Foxhill Telluris Boy 190839, white, born Aug 19, bred by Captain the Rt Hon J A FitzRoy, M.P., Fox Hill, West Haddon, s Foxhill Caryl 171702, d Orsett Telluris 2nd by Beaconsfield Laburnham 114234
- 1223 III (*£5*)—J PIERPONT MORGAN, Wall Hill, Aldenham Watford, for Buckswood Fushier 187950, roan, born May 20, bred by Miss N Marsland, Charlwood Park, Surrey, s Histon Baron Leo 164070, d 972 Miss Loganthorpe 12th by Barrington Chief 134987
- 1232 IV (*£4*)—ROBERT N LORI, Anderson, Blandford, for Anderson Champion Bates 186667, dark roan born Oct 30, s Kelmescott Conjuror 3rd 137269, d Damory Kirklevington 5th by Prince of Pearls 107408
- 1216 V (*£3*)—MAJOR R H FULLER, Great Chalfield, Melksham, Wilts, for Chalfield Strawberry Nottingham 188328 roan born June 5, s Grendon Greenleaf Nottingham 163775, d Chalfield Strawberry by Baron Leo 21st 118840
- 1226 R N—1 USTACE ABBI SMITH, Longhills, Lincoln, for Sorbrook Summertime 1230, 1379, 1417 R N for Cup—E H THORNTON, Kingsthorpe Hall, Northampton, for Grendon Blanco, Kingsthorpe Fairy Duchess 2nd and Kingsthorpe Rose Grey. H. C.—1209, 1210, 1222, 1228, 1230 C.—1213, 1221, 1234, 1236

Class 160.—*Dairy Shorthorn Bulls, born on or between January 1 and March 31, 1924*

- 1254 I (*£15*)—F W MORLEY, Biddestone Manor, Chippenham, for Biddestone Pirate, roan born Jan 19, s Preshute Bandit 151128, d Cockerham Purity (Vol 61, p 933) by Spency Beau 117836
- 1256 II (*£10*)—J M STRICKLAND, Bainesse, Catterick, for Bainesse Lord Broadhooks, red, born Jan 9, s Bainesse Royal Primrose 3rd 177983, d Brandsby's Lady Broadhooks 6th (Vol 65, p 1130) by Welcome Guest 140083
- 1241 III (*£5*)—A BROOMF & SONS, Preston Brook, Warrington, for Kingsthorpe Raspberry Duke, light roan, born Feb 23, bred by F H Thornton, Kingsthorpe Hall Northampton, s Kingsthorpe Fairy Duke 164556, d Kingsthorpe Raspberry 4th (Vol 64, p 332) by Somerford Pilot 128276
- 1247 IV (*£4*)—A ROSS FIELDING, The Leasowes, Hilderstone, Stone, Staffs, for Recorder, dark roan born Jan 1, bred by Christopher Dobson, Low Sizergh, Helington Kendal, s Merryman's Recorder 183103, d Snowball (Vol 64, p 1023) by Carbon 114597
- 1240 V (*£3*)—MAJOR R H FULLER, Great Chalfield, Melksham, Wilts, for Wicklesham Lord Nottingham, roan born Feb 27, bred by Captain T Allen Stevens, Wicklesham Lodge, Lavington, Berks, s Thornby Pioneer 133922, d Nottingham Heiress (Vol 64, p 1075) by Heilloom 120692
- 1250 R N—R W HOBBS & SONS, LTD, Kelmescott, Lechlade, for Kelmescott Conjuror 88th 1250, 1321, 1368 Cup—R W HOBBS & SONS, LTD, for Kelmescott Conjuror 88th, Orange 62nd and Melody 47th. H. C.—1245, 1252 C—1239, 1242

¹ Champion Prize of £10 given by the Dairy Shorthorn Association, for the best Bull in Classes 158 to 162

² Silver Challenge Cup, value 100 Guineas, given through the Dairy Shorthorn Association, for the best group of one Bull and two Cows or Heifers in Classes 158 to 166 Two at least of the animals must have been bred by the Exhibitor

Awards of Live Stock Prizes at Chester, 1925. xviii

Class 161.—*Dairy Shorthorn Bulls, born on or between April 1 and June 30, 1924*¹

- 1206 **I (215)**—VISCOUNT FEILDING, Newnham Paddox, Rugby, for *Streetaston Gold Prince* 2nd, roan, born May 24, s *Colescombe Graceful Lad* 154898, d *Rose of Gold* (Vol 62, p 1915) by *Cloth of Gold* 119311
- 1270 **II (210)**—ALFRED PALMER, Wokefield Park, Mortimer, Berks, for *Wokefield Custodian*, roan, born May 27, s *Kelmscott Conjuror* 60th 181980, d 28406 *Wokefield Charming* by *Wokefield Rex* 153117
- 1271 **III (25)**—R HOLLINGTON, Chequers Maid, Potters Bar, for *Lock Prince* 4th, white, born June 26, bred by Fillice Ferra Lock, Partridge Green, Sussex, s *Proud Victor* 151271, d *Beaumontorough 1* 10ndness 17th (Vol 64, p 723) by *Kilbane Crown Prince* 120977
- 1285 **IV (24)**—THOMAS WARBURTON, Hall Lane Farm, Daresbury, Warrington, for *Beauty's Proud Dairyman*, dark roan, born April 3 bred by W Carr, Hall Hill Farm, Dalton, s *Carleton Dairy King* 141431, d *Beauty* 37th (Vol 65, p 880) by *Admiral* 134537
- 1250 **V (23)**—GEORGE BICKFORD, Somerford Grange, Brewood, Staffs, for *Aikton Buttermilk*, red born April 2, bred by Mrs Bragg, Aikton, Wigton, s *Com Sabre* 164757, d *Aikton Butterfly* (Vol 64, p 743) by *Lord Abbotsford* 2nd 13.002
- 1275 **E N**—KINGSCLERE FARM, Kingsclere, Newbury, for *Kingsclere Dolphin* *Augustus*.
H C—1200, 1207, 1270, 1273, 1287 **C**—1.62, 1272, 1276, 1281

Class 162.—*Dairy Shorthorn Bulls, born on or between July 1 and December 31, 1924.*

- 1200 **I (215)**—ALBERT CHARLES BROWN, The Gables, Fernhill Heath, Worcester, for *Rushcourt Dolphin* 12th, red roan, born Aug 14, bred by Major R. W. Cooper, Rush Court, Walsingham, s *Colescombe Dolphin* 2nd 170434, d *Rainford Countess* 1awsley (Vol 64, p 1195) by *Cassida* s *Gift* 119885
- 1280 **II (210)**—CAPTAIN ROBERT B. BRASSEY, Cottesbrooke Hall, Northampton, for *Cottesbrooke Waterbury*, roan, born July 7, s *Foxhall New Year* 180898, d 10643 *Cottesbrooke Fairy Waterloo* 2nd by *Barrington Duke* 129506
- 1301 **III (25)**—J. PHIPPS MORGAN, Wall Hall, Aldenham, Watford, for *Aldenham Lord Ringlet*, red born July 24, s *Aldenham Lord Barrington* 177697, d *Hadnock Ringlet* 44th (Vol 62, p 1017) by *Master Dooley* 112572
- 1302 **IV (24)**—LIEUT. COLONEL R. MOSTYN OWEN, D 90, Woodhouse, Oswestry, for *Rednal Dandy*, roan, born Nov 7, s *Langbird* 161839, d 2312 *Sweet Barbara* 11th by *Selsmire Dandy* 145349
- 1308 **V (23)**—J. M. STRICKLAND, Baineses, Catterick, for *Baineses Dairyman* 9th, dark roan, born July 14, s *Baineses Lavender King* 177975, d 19096 *Keyingham Lulph* 6th by *Grandee* 115670
- 1303 **E N**—ALFRED PALMER, Wokefield Park, Mortimer, Berks, for *Wokefield Oswald*.
H C—1204, 1304, 1309 **C**—1288, 1290, 1310

Class 163.—*Dairy Shorthorn Cows (in milk), born in or before 1918*²

- 1323 **I (215, & Champion)**—I. L. MARTIN, Ashe Warren House, Overton, Hants, for 6461 *Princess Gwynne*, white, born April 28, 1918, calved June 3 1925, bred by I. J. and R. Park, Robinson House, Cuthwaite, Carlisle, s *Moraby Victory* 138107, d *Gwynne* of *Bracknburgh* by *Duke of Cumberland* 115762
- 1321 **II (210)**—R. W. HOBBS & SONS, LTD, Kelmscott, Lechlade, for *Orange* 52nd (Vol 64, p 993), dark roan, born Oct 25, 1917, calved May 7, 1925, s *Crème de Menthe* 119683, d *Orange* 49th by *Sir Rafe* 12th 107084
- 1313 **III (25)**—VISCOUNT FEILDING, Newnham Paddox, Rugby, for *Watercrock Cowshp* (Vol 63 p 1016), white, born Dec 1, 1916, calved May 20, 1925 bred by J. Moffat, Spital, Kendal, s *Proud Prince* 127480, d *Cowshp* 12th by *Prince Gongora* 81909
- 1320 **IV (24)**—LIEUT. COLONEL R. MOSTYN OWEN, D 90, Woodhouse, Oswestry, for *Dairymaid* 3rd (Vol 61 p 784), roan, born April 4, 1914, calved June 8, 1925, bred by W. Haugh, Walby Farm, Carlisle, s *Bradford Prince* 111123, d *Milkmaid* by *Ireby Signet* 95549
- 1327 **V (23)**—J. PHIPPS MORGAN, Wall Hall, Aldenham, Watford, for *Kirklevington Lady* 2nd (Vol 64, p 1228), roan, born April 12, 1917, calved April 30, 1925 bred by R. Long, Standon, Beds, s *Barrister* 2nd 129524, d *Kirklevington Lady* by *Pastures General* 116889
- 1338 **E N**—CAPTAIN ARNOLD S. WILLS, Thornby Hall, Northampton, for *Thornby Foggathorpe* 2nd, 1353, 1406 Cup 4—**I. L. MARTIN**, for *Princess Gwynne*, Standon Premier Beauty and *Sudborough Butterfly* 2nd
- 1338, 1339, 1483 **E N** for Cup 4—CAPTAIN ARNOLD S. WILLS, for *Thornby Foggathorpe* 2nd, 7th and 12th
H C—1317, 1336, 1339 **C**—1324, 1325

¹ Prizes, except Fourth and Fifth, given by the Dairy Shorthorn Association

² Prizes, except Fourth and Fifth, given by the Shorthorn Society

³ Champion Prize of £10 given by the Shorthorn Society, for the best Cow or Heifer in Classes 163 to 166. A Silver Medal is given by the Shorthorn Society to the Breeder of the Champion Dairy Shorthorn Cow

⁴ Silver Challenge Cup, value Fifty Guineas, given through the Dairy Shorthorn Association, for the best group of three Cows or Heifers in Classes 163 to 166.

xviii *Awards of Live Stock Prizes at Chester, 1925.*

Class 164.—Dairy Shorthorn Cows (in-milk), born in 1919 or 1920

- 1353 I (#15, & R N for Champion ¹)—T L MARTIN, Ashe Warren House, Overton, Hants, for 26787 Stondon Premier Beauty, roan, born Aug 22, 1920, calved May 15, 1925, bred by R Long Upper Stondon, Shiford, s Chaulden Premier 147864, d Stondon Beauty 2nd by Cardinal's Robe 119339
- 1360 II (#10)—MAJOR S P LATHES, Broughton Grange, Banbury, for 20122 Sorbrook Foggathorpe, red and little white, born May 15, 1920, calved May 28, 1925, s Preshute Barrington 144502, d Loobagh Foggathorpe 5th by Loobagh Duke 126555
- 1343 III (#5)—H A BROWN, Croft House Grendon Atherton, for 10738 Grendon Cressa, roan, born May 4, 1920, calved May 2, 1925, s Lord Nottingham 116317, d Cressida 42nd by Dairy Ingram 105184
- 1355 IV (#4)—J PIERPONT MORGAN, Wall Hall, Aldenham, Watford, for 18128 Longhills Belle 2nd, red and little white, born Jan 13, 1920, calved June 1, 1925, bred by J A Smith, Longhills, Lincoln, s Oxford Bridgegroom 121914, d Longhills Belle 1st Duke of Darlington 115163
- 1342 V (#3)—CAPTAIN ROBERT B BRASSEY, Cottesbrooke Hall, Northampton, for 936 Foggathorpe, red, born July 6, 1919, calved May 18, 1925, s Wildrex 146383, d Leazow Foggathorpe 4th by Preshute Bates 127156
- 1348 R N—MRS L M FITZ HUGH, Plas Power, Wrexham, for Rosette Prim 4th.
H. C.—1345, 1349 C.—1344, 1358

Class 165.—Dairy Shorthorn Cows (in milk), born in 1921

- 1382 I (#15)—THE DUKE OF WINCHESTER, G C V O, D S O, I tton Hall, Chester, for 31623 Eaton Belle, roan, born March 22, calved May 3, 1925, s Kenilworth True Boy 143246, d Queen of France by Beau Furberlow 91134
- 1376 II (#10)—H P MORTIMER, Kingsley Windmill, Warrington, for 15937 Princess Benedict 17th, light roan, born July 28, calved June 6, 1921, bred by H R Ion, Downy Riggs, Westlinton, Carlisle, s Searchlight 159242, d Princess Benedict 14th by Oxford Duke of Calthwaite 61st 127221
- 1372 III (#5)—MARRICK and ASHTON, Manton Grange, Marlborough and Scotsgrove, Thame, for 27468 Preshute Honey 3rd, red, born Jan 30, calved March 5, 1925, bred by C J K Maurice, Manton Grange, s Lockham Keystone 10th 1st 2613, d Preshute Honey by Roan Duke 12119
- 1368 IV (#4)—R W HOBBS & SONS, LTD, Kelmscott, Lechlade, for 25441 Melody 47th, roan, born May 3, calved May 1, 1925, s Crème de Menthe 119683, d Melody 33rd by Kelmscott Acrobat 4th 126217
- 1370 V (#3)—F H THORNTON, Kingsthorpe Hall Northampton, for 30950 Kingsthorpe Fairy Duchess 2nd, red, born Oct 26, calved May 26, 1925, s Playford Wilful Lord 158331, d Fairy Duchess 18th by Lord Crankley 2nd 112334
- 1383 R N—CAPTAIN ARNOLD S WILLS, Ithoraby Hall, Northampton, for Thornby Foggathorpe 12th
H. C.—1361, 1376, 1380 C.—1363

Class 166.—Dairy Shorthorn Heifers (in milk), born in or after 1922.

- 1393 I (#15)—W HAYNES, Bletchington, Oxon, for 41063 Holmelay Dairy 8th, roan, born Aug 15, 1922, calved May 27, 1925, bred by M Perkins, Holme Lacy, Hurford, s Lucky Man 157456, d Lacy Day 8th by Rainford Crai 117183
- 1417 II (#10)—F H THORNTON, Kingsthorpe Hall Northampton, for 4340 Kingsthorpe Rose Grey, red and little white, born March 25, 1922, calved June 10, 1925, s Kingsthorpe Dairy Duke 164556, d Rose Grey 5th by Underley Hero 32nd 144035
- 1406 III (#5)—T L MARTIN, Ashe Warren House, Overton, Hants, for 38337 Sudborough Buttery 2nd, roan, born May 6, 1922, calved April 20, 1925, bred by J Jackson, Thrapston, s Hethersett Dairyman 181453, d Kingsthorpe Butterfly 15th by Somerford Pilot 128276
- 1391 IV (#4)—G P GOLDFY, Eaglesfield, Leire, Rugby, for 49141 Lady Clovelly, red roan, born May 18, 1923, calved June 18, 1925, s Lord Leicester 9th 164968, d Lady Ivanhoe by Gilmorton Lad 131183
- 1392 V (#3)—G P GOLDFY, for 36760 Lady Doreen 9th, red and little white, born Oct 22, 1922, calved April 25, 1925, s Lord Leicester 9th 164968, d Lady Doreen by Gilmorton Lad 131183
- 1409 R N—J PIERPONT MORGAN, Wall Hall, Aldenham, Watford, for Hastoe Barrington 9th.
H. C.—1384, 1385, 1389, 1390, 1416 C.—1394, 1400, 1408, 1410

Non-Pedigree Dairy Shorthorns.

Class 167.—Non Pedigree Dairy Shorthorn Cows (in milk), born in or before 1919.

- 1422 I (#15)—H A BROWN, Croft House, Grendon, Atherton, for Isabelle 15164, roan, born Feb 18, 1918, calved June 11, 1925, s Barrington Snowstorm 2nd 124184, d by Festive Prince 120229
- 1423 II (#10)—H P MORTIMER, Kingsley Windmill, Warrington, for Lady Graceful, roan, breeder and age unknown, calved June 21, 1925

¹ Champion Prize of £10 given by the Shorthorn Society, for the best Cow or Heifer in Classes 163 to 166 A Silver Medal is given by the Shorthorn Society to the Breeder of the Champion Dairy Shorthorn Cow

Class 168.—Non-Pedigree Davry Shorthorn Cows or Heifers (in-milk), born in or after 1920.¹

- 1424 I. (£15)—H. A. BROWN, Croft House, Grendon, Atherstone, for Peggy, red and white, born May 18, 1921, calv'd March 11 1925, s Combebank Nottingham 130310, d Isabelle 15164 by Barrington Snowstorm 2nd 121184

Lincolnshire Red Shorthorns.

Class 169.—Lincolnshire Red Shorthorn Bulls, born in or before 1922.

- 1428 I (£15, & Champion *)—BUTLER SMITH, The Fields Cropwell Butler, Nottingham, for Harlaxton Balancer 17603 born April 4, 1921, bred by W. A. Harrison, North Lodge Harlaxton, s Horkstownian Premier 1400, d Harlaxton Deeping Pride by Deeping Curly (mat 2nd 1003)
- 1426 II (£10, & R. N. for Champion *)—ROWLAND T. AUBREY Weybridge, Ellington, Hunt Inndon for Kirmington Weybridge 18674 born March 22 1921 bred by George Marris, Kirmington Ulceby, Lincs, s Hillington Ascent 12487 d Pindley Yarborough Ruby 2nd by Saltfleet Marshman 4908
- 1427 III (£5)—ROBERT MOSS Hallwates Cropston, Leicester, for Soignes Fashion 14879 born Dec 22 1918, bred by A. Lewis, Westacre, Norfolk, s Lillington Hercules 3rd 13492 d Soignes
- 1430 R. N.—TOMPER BROTHERS Broughton Lodge, Broughton, Hunts, for Deepden Reality 14th

Class 170.—Lincolnshire Red Shorthorn Bulls, born in 1923

- 1431 I (£15)—JOHN EVANS & SON, Burton Lincoln for Tathwell Diaphon 18968, born Feb 21 bred by H. and A. D. Potterell, Tathwell Hall Touth, s Harlaxton VC 14573, d Tathwell Miler by Tathwell Yeoman 12102
- 1433 II (£10)—BUTLER SMITH The Fields Cropwell Butler, Nottingham for Cropwell Victor 194 born April 21, s Leahby No 304 18082 d Sudbrook 195C by Bonby Seaman 10497

Class 171.—Lincolnshire Red Shorthorn Bulls, born in 1924

- 1437 I (£15)—BUTLER SMITH The Fields Cropwell Butler Nottingham for Cropwell Premier 19292, born Jan 12 s Harlaxton Balancer 17603, d Bingham Violet (Vol 27, p 535) by Andriety Clapper 13138
- 1436 II (£10)—BUTLER SMITH for Cropwell Balancer 19291, born Jan 9, s Harlaxton Balancer 17603 d Cropwell Lady (Vol 27, p 704) by Flawborough Marquis 15444
- 1434 III (£5)—H. G. CLARKE West View, Ilkley, for Forest Andy, born April 12, s Boston Arab 1640 d Wylin Tourist 1th (Vol 24, p 364) by Bonby Tourist 9647

Class 172.—Lincolnshire Red Shorthorn Cows or Heifers (in milk), born in or before 1922.

- 1438 I (£15)—JOHN EVANS & SON, Burton Lincoln for Burton Opal 2nd, born in March, 1920 calv'd May 28 1925 bred by W. Warburton Burton, Ecton, s Throckingham Kingmaker 14018 d Opal by Harlaxton Judgment 10751
- 1440 II (£10)—BUTLER SMITH, The Fields, Cropwell Butler, Nottingham, for Cropwell Lady (Vol 27, p 704), born Feb 21, 1921, calv'd Feb 15, 1925, s Flawborough Marquis 15444, d Flawborough Lady by Croxton Ruby 50th 9803
- 1442 III (£5)—BUTLER SMITH for Saltfleet Red Rose (Vol 27 p 508), born July 28, 1919, calv'd May 2 1925 bred by T. H. B. Lushney Worlaby, Brigg, s Cockerington Hallington 2nd 11437 d by Croxton Ruby 50th 9803
- 1439 R. N.—A. PRESTON JONES, Mickleover House, Derby, for Mickleover Prima Donna.

Class 173.—Lincolnshire Red Shorthorn Cows or Heifers (in milk), born in or before 1922, showing the best milking properties²

- 1448 I (£15, & Champion *)—JOHN EVANS & SON Burton, Lincoln, for Burton Cherry 4th (Vol 26 p 331), born Sept 23 1917 calv'd June 15, 1925, s Burton Jordan 11397, d Burton Cherry 3rd by Burton Kethney 9694
- 1449 II (£10, & R. N. for Champion *)—JOHN EVANS & SON, for Burton Fillpail 6th (Vol 29, p 344), born in March 1918 calv'd June 18, 1925, bred by Captain W. G. Need, Wintorpe Hall Newark, s Burton Jordan 11397, d Burton Fillpail 2nd by Mr Profit 4926
- 1446 III (£5)—CHIFFERS & SONS LTD, Hulton, Cambridge, for Southern Pansy (Vol 26, p 304), born April 27 1919, calv'd May 3, 1925, bred by Benjamin G. Bowser, Southern Manor, Lincoln, s William of Hillington 10362, d by Southampton King Hal 7119

¹ Prizes given by the Dairy Shorthorn Association

² Champion Silver Cup, value £10, given by the Lincolnshire Red Shorthorn Association for the best Bull

³ Prizes, except Fourth, given by the Lincolnshire Red Shorthorn Association

⁴ Champion Silver Cup, value £10, given by the Lincolnshire Red Shorthorn Association for the best Female of the Dairy type.

Awards of Live Stock Prizes at Chester, 1925.

- 1445 IV. (#4)—BENJAMIN GEORGE BOWSER, Soothern Manor, Lincoln, for Soothern Sunset (Vol 26, p. 108), born April 28, 1918, calved May 31, 1925, s Scampton Quorum 11926, d by Scampton King 7116
 1452 E N—LIFUT COLONEL SIR A G WEIGALL, KCMG, Petwood, Woodhall Spa, for Langford Polly 5th

Class 174.—Lincolnshire Red Shorthorn Heifers, born in 1923

- 1462 I (#15, & Champion *)—MISSIE I M and S M GRANTHAM, The Rookery, West Keal, Spilsby for Keal Kit 12th (Vol 30, p. 385), born April 29, s Anwick Perfection 17241, d Keal Kit 4th by Kent Bollo 6925
 1466 II (#10)—BUTLER SMITH The Fields, Cropwell Butler, Nottingham, for Cropwell Kirmington (Vol 20, p. 497), born Feb. 28, s Poolham Ncho 17878, d Kirmingham Rose 60th by Scampton King of the Rubies 7122
 1453 III (#5)—HIS MAJESTY THE KING, Sandingham, for Wolferton Treasure 2nd (Vol 30, p. 251), born March 23, s Wolferton Prince 15059, d Pendley Treasure by Croxton Ruby 33rd 8939
 1459 IV. (#4)—C DE PARAVICINI, Birkholme Manor, Corby, Lincs, for Beacon Hill Fatima (Vol 29, p. 448) born Jan 7, s Beacon Hill Dago 16802, d Beacon Hill Fanny by Birkholme Samto 10493
 1471 V (#3)—WILLIAM GRANT, Skinnand, Navenby, Lincoln, for Skinnand Columbine 3rd (Vol 30, p. 41) born Jan 3, s Skinnand Quality 15830, d Skinnand Columbine by Kirmington Favourite 4th 10829
 1456 E N—ROBERT AND I AUBRY, Weybridge, Willington, Huntingdon, for Pride of Weybridge H C—1454, 1467 G—1455, 1457

Class 175.—Lincolnshire Red Shorthorn Heifers, born in 1924

- 1469 I (#15, & E N for Champion *)—JOHN W BELL, Poolham Hall Horncastle, for Poolham Lalac, born April 16 s Kirmington Ruby King 36th 15585, d Poolham Cowslip (Vol 27, p. 358) by Pendley 1st 9247
 1472 II (#10)—WILLIAM GRANT Skinnand Navenby, Lincoln, for Skinnand Columbine 4th, born Feb. 28, s Skinnand Quality 15830 d Skinnand Columbine (Vol 27, p. 523) by Kirmington Favourite 1st 10829
 1471 III (#5)—C DE PARAVICINI Birkholme Manor, Corby, Lincs, for Kingwood Ruby, born May 9, bred by Capt I I Ransom, Kingwood Jamourne s Anderby Red Pole 15112, d Pendley Duchess 3rd (Vol 25, p. 40) by Scampton King of the Rubies 7122
 1478 E N—HIS MAJESTY THE KING, Sandingham, for Wolferton Music H C—1475 G—1473

Devons.

Class 176.—Devon Bulls, born in or before 1923

- 1477 I. (#15, and Champion *)—ABRAHAM TRIBLE & SONS, [Halsdon] Barton Holworthy, North Devon for Overton Goldcom 2nd 10236, born May 1, 1918, bred by the late W Huxtable, Bishop's Lawton, Barnstaple s Capton Buttermen 9816, d Overton Myrtle 2nd 2912 by Stockleigh Masterpiece 6548
 1478 II (#10)—FRID W VERNER, Avercombe, Bishopscumpton, Barnstaple for Molland Wonder 1242 born July 12, 1923, bred by I Crookam, Molland, s Land Key Cowboy 10050, d Vernercombe Milkmaid 1st 34686 by Putnam Good Boy 6883

Class 177.—Devon Bulls, born in 1924

- 1481 I (#15, & E N for Champion *)—CHARLES MORRIS, Highfield Hall, St Albans and Bishop's Lydeard for Highfield Gem 12700, born Jan 2, s Highfield Gem 2nd 9329, d Northmoor Luck 28836 by Northmoor Monarch 7807
 1480 II (#10)—BLAND CLAYWORTHY, Cutsey, Prull, Taunton, for Cutsey Rupert 12635, born May 30, s Cutsey Larkspur 11837, d Westcott Ruby 29307 by Longforth Mailbag 7439

Class 178.—Devon Cows or Heifers (in milk), born in or before 1922

- 1482 I (#15, & Champion *)—CHARLES MORRIS, Highfield Hall, St Albans and Bishop's Lydeard for Highfield Cherry 2nd 35224, born Jan 30, 1922 calved Jan 12, 1925, s Highfield Gem 2nd 9329, d Northmoor Cherry 15554 by Gotton Prince 2nd 8070
 1484 II (#10)—TOM WARNE, Trevisquite Manor, St Mabyn, Cornwall, for Trevisquite Favourite 33514, born Aug 20, 1920, calved Jan 20, 1925, s Morton Model 9754, d Wilson Favourite 26979 by Whimble Impmortal 6579
 1483 III (#5)—CHARLES MORRIS for Highfield Luck 14229, born March 1, 1921, calved March 5, 1925, s Cravelewoman Beechnut 9620, d Northmoor Luck 28836 by Northmoor Monarch 7807

* Champion Silver Cup, value £10, given by the Lincolnshire Red Shorthorn Association for the best female other than Dairy type

* Champion Prize of £10 10s given by the Devon Cattle Breeders' Society for the best Bull in Classes 176 and 177, entered or eligible for entry in the Devon Herd Book

* Champion Prize of £10 10s given by the Devon Cattle Breeders' Society for the best Cow or Heifer in Classes 178 to 181, entered or eligible for entry in the Devon Herd Book

Class 180.—Devon Heifers, born in 1923.

- 1485 I (£15, & R N for Champion *)—H R H THE PRINCE OF WALES, K G, Home Farm, Stoke Clunland, Cornwall, for Coombeshead Crossida 35570, born Feb 10, s Clampt Nonsuch 10024, d Coombeshead Crocus 31587 by Clampt Gay Laddie 9197
1486 II (£10)—ELAND CLATWORTHY, Cutsey, I rull, launton, for Cutsey Prude 35782, born June 1, s Cutsey Peet 10974, d Westcott Perfection 4th 31783 by Grazelewman Defender 8813
1487 III (£5)—CHARLES MORRIS, Highfield Hall, St Albans and Bishop's Lydeard, for Highfield Stuckey 1st 36176 born April 4, s Highfield Gem 2nd 9329, d Vanguard s Stuckey 8th 29266 by Northmoor Vanguard 7810

Class 181.—Devon Heifers, born in 1924

- 1488 I (£15)—HIS MAJESTY THE KING the Royal Farms, Windsor, for Windsor Sadie 36499 born March 7, s Highfield Warrior 11917, d Windsor Sunday 31585 by Windsor Famous 9522
1489 II (£10)—(HARPER MORRIS, Highfield Hall, St Albans and Bishop's Lydeard, for Highfield Cherry 3rd 37213 born Jan 1, s Highfield Gem 2nd 3329, d Northmoor Cherry 31534 by Cotton Prince 2nd 8070
1490 III (£5)—CHARLES MORRIS, for Highfield Fairmaid 6th 37224, born Jan 10, s Highfield Gem 2nd 9329, d Highfield Fairmaid 5th 32174 by Bryanston Masterpiece 8783
1491 R N—CLIFFORD THORNE, Rutland Villa, Maundee, Newport, Mon, for Molton Wallflower 2nd.

South Devons.

Class 182.—South Devon Bulls, born in or before 1923

- 1492 I (£15, & Champion *)—CAPTAIN J T CORSTON Pentallie Castle St Millon, Cornwall, for Mathecombe Milkman 2nd, born Jan 29 1917, bred by J M Wroth Coombe, Halbiton, Plymouth, s Brownstone Laddie 4774, d Kitty 11346 by Mirafid Paymaster 3431
1496 II (£10, & R N for Champion *)—W I HOSKING & SONS, Fentongollan Merther, Trebuck, Cornwall for Fentongollan Apollo 8466, born Sept 5, 1919, s Palston Rulei 3118 d Kitty 9332 by Ruby's Hero 751
1494 III (£5)—SAMUEL LIVERS, Linnell Tandalup, Hatt Cornwall for Lixton Concorde 5th 8300, born Jan 24 1911 bred by Sydney S Horton Lixton Loddswell, Devon s (unculler 1st 488 d Molly 24th 1764 by Norman 3510
1493 R N—J P CUNDY & SONS, Latover, Crownhill, Devon, for Milkman.
H C—1497

Class 183.—South Devon Bulls, born in 1924

- 1501 I (£15)—JOHN WAKTHAM, Rowden Newton Terrors Devon, for Rowden Eustace 2nd, born Feb 26, s Fentongollan Apollo 3rd, d Lovely 20747 by Napoleon 6061
1198 II (£10)—J P CUNDY & SONS, Latover, Crownhill, Devon, for Latover Sir Frederick, born June 4 bred by I Piggers & Sons, Plymouth, s Prawle Rentpayer 9385, d Curly 10th 1849 by Mathecombe Sport 5381
1499 III (£5)—SAMUEL LIVERS, Linnell, Tandalup, Hatt, Cornwall for Tinnell Eclipse, born Jan 10, s Napoleon 20th 7249, d Ethel 18005 by Offield's Monarch 2nd 5543

Class 184.—South Devon Cows or Heifers (in milk), born in or before 1922

- 1502 I (£15, & Champion *)—HENRY CHAFFE, Harestone, Brixton, Devon, for Worswell Gladys 11th 21006, born July 2, 1911, calved Dec 26, 1924, s Widdall Champion 6874, d Worswell Gladys 4th 13663 by Mirafid Royal Star
1504 II (£10)—WALTER HUNT, Tracey's Farm, Berry Pomeroy, Totnes, for Milkmaid 10th 18197, born Aug 2, 1911 calved March 2, 1925, bred by W S Harris, Aish Farm, Stoke Gabriel, Totnes, s Well Champion 5210, d Milkmaid 5th 12696 by Trade 3438
1503 III (£5)—WALTER HUNT, for Milkmaid 9th 16797, born Sept 2, 1916 calved April 13, 1925 bred by W S Harris Aish Farm, Stoke Gabriel, Totnes, s Well Champion 5210, d Milkmaid 4th 11644 by Dahlia Hero 2687

Class 185.—South Devon Heifers, born in 1923

- 1506 I (£15, & R N for Champion *)—LORD MILDMAY OF FLETF, Flete, I rmlington Devon, for Flete Countess 3rd 28889, born July 2, s Irechle Forester 9590, d Countess 2nd 18722 by Lillian s Champion 6016
1508 II (£10)—LORD MILDMAY OF FLETF, for Flete Rosebud 28893, born Aug 10, s Trehele Forester 9500, d Lette Rose 23516 by Random 7315
1509 III (£5)—JOHN WAKTHAM, Rowden, Newton Terrors, Devon, for Rowden Priscilla 29405, born Feb 5, s Daisy's Pride 8417, d Pansy 16152 by Pamflete Eclipse 4510

* Champion Prize of £10 10s given by the Devon Cattle Breeders' Society for the best Cow or Heifer in Classes 178 to 181 entered or eligible for entry in the Devon Herd Book

* Silver Challenge Cup value £10 10s, given by the South Devon Herd Book Society for the best Bull in Classes 182 and 183

* Silver Challenge Cup, value £10 10s, given by the South Devon Herd Book Society for the best Cow or Heifer in Classes 184 to 186

Class 186.—South Devon Heifers, born in 1924.¹

- 1514 I. (£15).—LORD MILDMAY OF FLETE, Flete, Ermington Devon, for *Flete Pink 3rd*, born Jan 19; *s* Trehele Forester 9500, *d* Flete Pink 23515 by Random 7315
- 1515 II. (£10).—LORD MILDMAY OF FLETE, for *Flete Princess*, born Jan. 1; *s* Trehele Forester 9500, *d* Flete Countess 25432 by General 7757.
- 1512 III. (£5).—SAMUEL EVERY, Tinnell, Landulph, Hatt, Cornwall, for *Tinnell Eureka*, born Jan 15; *s* Napoleon 20th 7248, *d* Curley 6th 13831 by King Lear 4428.
- 1510 R. N.—HENRY CHAFFE, Harestone, Brixton, Devon, for *Harestone Gladys 15th*.

Red Polls.**Class 187.—Red Poll Bulls, born in or before 1922.**

- 1516 I. (£15, & R. N. for Champion.²)—HIS MAJESTY THE KING, Sandringham, for *Royal Crimson 11763*, born Oct. 28, 1919; *s* Sudbourne Crimson 11222, *d* 25094 Gressenhall Rubina by Unique 10379.
- 1526 II. (£10).—THOMAS H. SOCHON, Tanfield Tye West Hanningfield, Chelmsford, for *Necton Golconda 12757*, born Jan. 19, 1922, bred by R. Harvey Mason, Necton Hall, Swaffham; *s* Sudbourne Cressus 10027, *d* 2273 Godiva by Turk 10115
- 1525 III. (£5).—M and J. E. PARRY, Talybryn, Bwlch S O, Breconshire, for *Usk Valley Foundation 12469*, born Sept. 17, 1911, bred by Mrs. M. Parry, Talybryn, Bwlch; *s* Sudbourne Albion 11064, *d* 24892 Sudbourne Robuste by Acton Crowfoot 9987.
- 1527 IV. (£4).—LORD WYERINRIK, Horeley Hall, Grestford, North Wales, for *Ashmoor Jocund 12499*, born Jan. 23, 1922, bred by A. Carlyle Smith, Sutton Hall, Woodbridge; *s* Ashmoor Pearson 11525, *d* 23386 Ashmoor Joan by Dax 9567.

Class 188.—Red Poll Bulls, born in 1923.

- 1534 I. (£15, & Champion.²)—A. CARLYLE SMITH, Sutton Hall, Woodbridge, for *Ashmoor Alert*, born March 20, *s* Davyson 363rd 11926, *d* 25418 Ashmoor VI by Emperor 10410.
- 1528 II. (£10).—LIEUT. COLONEL R. C. BAIR, C.B.L., M.V.O., Gresham Hall, Norwich, for *Gresham Rustic*, born June 12; *s* Basildon Royal 11882, *d* 28800 Gresham Saucy Girl by Sprowston Spartacus 11482.
- 1535 III. (£5).—THOMAS H. SOCHON, Tanfield Tye, West Hanningfield, Chelmsford, for *Red Guide 13173*, born July 12, bred by Herbert Blofield, Billington Hall, Diss, *s* Sudbourne Cicero 12456, *d* 28097 Red Girl by Acton Loyal 10942
- 1531 IV. (£4).—VICOUNT LOULDSSTONE, Longford Castle, Bilsbury, for *Longford Wisful 13113*, born Feb. 12; *s* Sudbourne Choice Goods 12455, *d* 29015 Longford Languish by Longford Mixture 11407.
- 1529 R. N.—LIEUT. COLONEL C. BROOK, Kinmount, Annan, Dumfriesshire, for *Kinmount Chuker*.
H. G.—1532. C.—1530.

Class 189.—Red Poll Bulls, born in 1924.

- 1545 I. (£15).—A. CARLYLE SMITH, Sutton Hall, Woodbridge, for *Kilton Sand*, born April 20, bred by W. R. Paul, Kilton Lodge, Ipswich; *s* Sudbourne Sam 12848, *d* 27041 Kilton Moss by Shotford 11200
- 1540 II. (£10).—LIEUT. COLONEL SIR MERRIK R. BURRELL, BART, C.B.E., Knepp Castle, Horsham, for *Knepp Insurance*, born April 2; *s* Necton Grenadier, *d* 27063 Knepp Prudence by Sudbourne Crown 10803.
- 1541 III. (£5).—MRS. R. M. FOOT, White Hill, Berkhamsted, for *White Hill Marquis*, born Jan. 29; *s* Knepp Marquis 12704, *d* 28412 White Hill Molly by Sudbourne Hector 11224
- 1546 IV. (£4).—CHARLEY TINKER, Kilmartin, Inverness, for *Kilmartin Red Coat 13448*, born Jan. 30; *s* Crowfoot Mollyson 10843, *d* 26867 Gressenhall Kathleen by Gressenhall Beresford 10174.
- 1539 R. N.—THOMAS BROWN & SON, Marham Hall, King's Lynn, for *Marham Palmerston*.

Class 190.—Red Poll Cows or Heifers (in-milk), born in or before 1922.

- 1568 I. (£15, & R. N. for Champion.³)—WALTER SCRIMGEOUR, Wissett Hall, Halesworth, Suffolk, for 27327 *Tendring Floss 29th*, born Oct. 1, 1916, calved May 1, 1923, bred by Sir Joshua Rowley, Bart, Tendring Hall, Stoke by Nayland, *s* Rendlesham Hector 10658, *d* 22558 Floss 10th by Combatant 9550.
- 1567 II. (£10).—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading, for 25965 *Sudbourne Comfort*, born Aug. 10, 1916, calved March 27, 1925, bred by Kenneth M. Clark, Sudbourne Hall, Orford; *s* Sudbourne Credit 10796, *d* 22355 Sudbourne Comfort by Sudbourne Spley 9751.
- 1560 III. (£5).—MAJOR J. A. MORRISON, D.S.O., for 2582 *Basildon Comfort*, born May 9, 1921, calved March 11, 1925; *s* Sudbourne Minor 11492, *d* 25965 Sudbourne Comfort by Sudbourne Credit 10796.

¹ Prizes given by the South Devon Herd Book Society.² Champion Prize of £5 given by the Red Poll Cattle Society for the best Bull in Classes 187 to 189.³ Champion Prize of £5 given by the Red Poll Cattle Society for the best Cow or Heifer in Classes 190 to 192.

- 1563 IV. (#4)—HURST BROTHERS, LTD., Asheldham Chase, Southminster, Essex, for 26059
Henham Sunshine, born June 27, 1917, calved June 9, 1925, bred by the Earl of Stradbroke,
 Henham Hall, Suffolk, s Redgrave Royal 10350, d 22238 *Pvt Viola* by Dax 9567
- 1573 V (#3)—LORD WATFERT, Horsley Hall, Gresford North Wales, for 30252 *Necton End*
 2nd, born Sept 30 1921, calved March 20, 1925, bred by R Harvey Mason, Necton
 Hall, Swaffham, s Sudbourne Ceresus 10927, d 23005 1 na by Aviator 9995
- 1570 E N—A CARLYLE SMITH, Sutton Hall, Woodbridge, for *Ashmoor Sorcerer*.
 H C—1547, 1557 C—1556, 1559

Class 191.—Red Poll Heifers, born in 1923.

- 1594 I (#15, & Champion *)—A CARLYLE SMITH, Sutton Hall Woodbridge, for 31996 *Ashmoor Berry*, born Jan 1, s Aspall Lros 6th 11875, d 28448 *Ashmoor Bertha* by *Ashmoor*
Pearson 11525
- 1501 II. (#10).—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading, for 32055
Basildon Wonder Pear, born Jan 23; s Basildon Orpheus 11557, d 28618 *Colworth*
Wistful by Plumstead Periscope 11188
- 1586 III (#5)—N A HEYWOOD, Glevering Park, Wickham Market, for 32939 *Model Aconite*
 2nd, born March 15, bred by A B Long, Pettistree, Wickham Market, s Combs
 Herolt 11912, d 26271 *Houlingham Aconite* 2nd by Red Pital 10908
- 1596 IV (#4)—LORD WATFERT, Horsley Hall, Gresford, North Wales, for 33255 *Sudbourne Kismet*, born April 1, bred by the Largs of the late Lord Manton Sudbourne Hall,
 Orford, s Saham Shrewd Boy 11455, d 29366 *Sudbourne Kiwi* by Framson Crookford
 11157
- 1574 V (#3)—HIS MAJESTY THE KING, Sandringham, for 33093 *Royal Ruth* 2nd, born May 6;
 s 1 Aston Autocrat 11624, d 29207 *Royal Rubina* by Royal Victor 11453
- 1595 E N.—THOMAS H BOCHON, Tanfield Tye, West Hanningfield, Chelmsford, for *Tanfield Dora*.
 H. C.—1570 C.—1581, 1588

Class 192.—Red Poll Heifers, born in 1924.

- 1509 I. (#15)—J P ALKRIGHT, Hatton House, Warwick, for *Hatton Famous*, born Feb 14,
 s Ashmoor Sir Richard 11872, d 21035 *Hatton Fable* by Acton Hussar 9887
- 1605 II (#10)—H MUNRO CAUTLEY, Neutral Farm, Butley, Linstall S O, Suffolk, for
Butley Fragrance, born Jan 26, s Royal Crimson 11763, d 30347 *Royal Mavis* by Royal
Sunshine 11452
- 1618 III (#5)—A CARLYLE SMITH, Sutton Hall, Woodbridge, for *Ashmoor Peerless*, born Jan.
 1, s Aspall Lros 6th 11875, d 22422 *Ashmoor Peerless* by Davyson 285th 9230
- 1614 IV (#4)—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading, for *Basildon Wonder Pear* 2nd, born March 15, s Basildon King 12519, d 28618 *Colworth Wistful* by
 Plumstead Periscope 11183
- 1597 V (#3)—HIS MAJESTY THE KING, Sandringham, for *Royal Primrose*, born March 16;
 s 1 Aston Autocrat 11624, d 25517 *Christmas Rose* by Boulge King s Bounty 10710
- 1612 E N.—LILLY W LEACH, Meddler Stud, Kennett, Newmarket, for *Meddler Harebell*.
 H C.—1602, 1615 C.—1609

Blue Albions.

Class 193.—Blue Albion Bulls, born in or before 1922.

- 1621 I. (#15)—LIEUT COLONEL WILLIAM EDWARD HARRISON, O B E, Wychnor Park,
 Burton on Trent, for *Bank Champion* 181, born July 28 1921, bred by G W Axe, Loxley,
 Uttoxeter, s Bank Baron 1, d Bank Marion 68
- 1620 II (#10)—PERCY DOBSON, Manor Farm, Ridgwardine, Market Drayton, for *Elton Monarch* 501 born Aug 27, 1922 bred by J W Dakin, Elton, Matlock, s Bank Baron 1,
 d Liton Maggie 1230 by Bank Chief 2
- 1623 III. (#5)—RANDOLPH LOBY, Charlsworth Manor, Blandford, for *Charlsworth Champion*
 259, born July 22, 1922, s Bank Scarsdale 21, d Charlsworth Turnworth 3338
- 1622 E N.—L T POFER & SON, Dover Demeant, Little Somerford, Chippenham, for
Stanton Earl of Derby.

Class 194.—Blue Albion Bulls, born in 1923.*

- 1624 I. (#15)—THOMAS H CALDFEBANK, The Hall, Stow Main, Chelmsford, for *Broomhill Threshold*, born March 31, bred by Major Gerald Johnson, D S O, Foston, Derbyshire;
 s Mountan King 81, d Broomhill Amber 1072
- 1627 II. (#10)—ARNOLD GILFITT, Ridgwood, Chorley, Lancs, for *Ridgwood Blue Bank*,
 born Aug 31, s England's Glory 49, d Ridgwood Bank
- 1626 III. (#5)—PERCY DOBSON, Manor Farm, Ridgwardine, Market Drayton, for *Ridgwardine Chief*, born Nov 1, s Hurdlow Champion 61, d Ridgwardine Sweetheart 6456
- 1628 E N.—W L GLOVER, The Shrubberies, Snarestone, Burton on Trent, for *Snarestone Court*.

* Champion Prize of £5 given by the Red Poll Cattle Society for the best Cow or Heifer in Classes 190 to 192.

* Prizes given by the Blue Albion Cattle Society.

civ *Awards of Live Stock Prizes at Chester, 1925.*

Class 195.—Blue Albion Bulls, born in 1924.¹

- 1630 I. (#15).—PERCY DOBSON, Manor Farm, Ridgwardine, Market Drayton, for **Bradbourne Orion**, born April 20, bred by A. Trafford, Dulands Farm, Ashbourne; s. Cropper Chief 285, d. Bradbourne Florine 2408 by Bradbourne Dairyman 29
 1635 II. (#10).—RANDOLPH TOBY, Charlsworth Manor, Blandford, for **Charlsworth Blue Boy**, born Jan 27, s. Charlsworth Peter 267, d. Dumpling 2nd
 1632 III. (#5).—A. T. GREENSLADE, Little Walden Park, Blandford, for **Rockells Dreadnought**, born March 6, bred by Mr. Cowell, Rockells, Limdon, Saffron Walden, s. Bank Scarsdale 21, d. Rockells Fuchsia 6536
 1634 R. N.—WILFRED L. STEEL, Ranton Abbey, Haughton, Stafford, for **Ranton Victor**.

Class 196.—Blue Albion Cows or Heifers (in-milk), born in or before 1922.

- 1647 I. (#15).—T. H. SWIRE & SONS, Bellaport and Mount Farms, Market Drayton, for **Mount Sweetheart**, born in 1918, calved June 10, 1925, bred by W. H. Hobson, Woodhey Hall, Nantwich
 1640 II. (#10).—LIEUT.-COLONEL WILLIAM EDWARD HARRISON, O B E., Wychnor Park, Burton-on-Trent, for **Cliftonthorpe Royal** 3628, calved June 22, 1925, breeder and age unknown
 1642 III. (#5).—R. H. A. HOLBROOK, The Grange, Farnborough, Banbury, for **Charlsworth Blossom** 1106, age unknown, calved July 1, 1925, bred by Randolph Lucy, Charlsworth Manor, Blandford
 1641 IV. (#4).—HASSOP ESTATE CO., Hassop Hall, Bakewell, for **Hassop Bluebell**, born May 21, 1922, calved May 2, 1925, bred by Lieut.-Colonel H. K. Stephenson, D S O., Hassop Hall, Bakewell; s. Blue Cap, d. Hassop Buttercup
 1636 V. (#3).—ARNOLD GILLITT, Ridgwood, Chorley, Lancs, for **Bradbourne Hiawatha**, born in 1921, calved June 19, 1925, bred by A. Trafford, Ashbourne, Derby
 1646 R. N.—T. H. SWIRE & SONS, for **Mount Kitty**.
 H. C.—1645.

Class 197.—Blue Albion Heifers, born in 1923.

- 1653 I. (#15).—LIEUT.-COLONEL WILLIAM EDWARD HARRISON, O B E., Wychnor Park, Burton-on-Trent, for **Poplars Sweetheart** 8948, born April 16, bred by Mrs. Howard, Ley Hill Farm, Doveridge, s. Hurdlow Challenger 59, d. Poplars Mabel 6082
 1650 II. (#10).—ARNOLD GILLITT, Ridgwood, Chorley, Lancs, for **Bradbourne Maine** 2nd, born Oct 7, bred by A. Trafford, Ashbourne, Derby, s. Bradbourne Masterpiece, d. Bradbourne Maize
 1649 III. (#5).—ARNOLD GILLITT, for **Adderley Cowslip**, born Aug 26, bred by W. H. Holdcroft, Church Farm, Adderley, Market Drayton, s. Bramshall Wild Blood 37, d. Adderley Haswell 1518
 1648 R. N.—PERCY DOBSON, Manor Farm, Ridgwardine, Market Drayton, for **Ridgwardine Joan**.
 H. C.—1654 G.—1652.

Class 198.—Blue Albion Heifers, born in 1924.¹

- 1659 I. (#15).—LIEUT.-COLONEL WILLIAM EDWARD HARRISON, O B E., Wychnor Park, Burton-on-Trent, for **Barton Sweetheart**, born Feb 17, s. Barton Jude 190, d. Bradbourne Sweetheart 906
 1661 II. (#10).—JOHN D. SEALS, Home Farm, Snelston, Ashbourne, for **Pike Hawthorn**, born Jan 31; s. Bradbourne Major 141, d. Pike Jessie 6022
 1656 III. (#5).—PERCY DOBSON, Manor Farm, Ridgwardine, Market Drayton, for **Adderley Bright Eyes**, born March 20, bred by W. H. Holdcroft, Holly Farm, Norton-in-Hales, s. Hurdlow Champion 61, d. Adderley Mona 1638
 1658 R. N.—ARNOLD GILLITT, Ridgwood, Chorley, Lancs, for **Ridgwood Ruth**.
 H. C.—1663 G.—1657.

British Friesians.

The letters *F. R. S.* after the number of an animal indicate that such animal is registered in the *Friesch Rundvee Stamboek* (*Friesland Cattle Herd Book*) *Zwartebonte* (*Black and White*) Section.

The letters *H. F. R. S.*, refer to the *Hulpstamboek* (*Auxiliary Herd Book*) *Zwartebonte* (*Black and White*) Section of the *Friesch Rundvee Stamboek*.

The letters *F. H. B. S. A.*, after the number of an animal indicate that such animal is registered in the *Friesland Herd Book*, South Africa.

The letters *S. A. S. B.* after the name of an animal indicate that such animal is registered in the *South African Stud Book*.

The letters *P. I.* after the name of an animal indicate that such animal is of pure imported *Friesian* (Holland) or *South African* blood.

Unless otherwise stated the numbers refer to the *British Friesian Herd Book*.

¹ Prizes given by the Blue Albion Cattle Society.

Awards of Live Stock Prizes at Chester, 1925.

cv

Class 199.—British Friesian Bulls, born in or before 1922.

- 1683 I (£15, & Champion ¹)—LORD RAYLEIGH, Terling, Essex, for **Terling** (imp 1922) **Marthus** 215, born May 18, 1921, bred by the Golden Valley Citrus Estates, Ltd., Moor River Neth., s. Crago Marthus ord 811 H B, S A, d. Meidema 4th 1656 S A S B by Johan (C.R.C. 5679) 1 R S
- 1671 II (£10)—MISS A. GUTSE, Inwood, Templecombe, Somerset, for **Dunnald Ruymaster** 1677 P I, born July 12, 1921, bred by the Exors of Major David Spence Montrose, s. Scaton Roland 10533 P I, d. Inwood (imp) Ruyma 10th 18156 by De Verwachting 2nd 4429 1 R S
- 1668 III (£5, & Champion ²)—GEORGE J. JARON, Inghiston Hall, Ramfield, Uckfield, Sussex, for **Thurston Karel President** 21581, born Jan 1, 1922, s. Kirkhill (imp) Karel 2nd 4051, d. Loxlease Noel 17778 by Wigginton Pippin 223
- 1670 IV (£4) 1 W. GIBBIE and G. WOODHILL, Weston Hall, Weston on Trent, Derby, for **Seaton Roland** 10593 P I, born May 10, 1918, bred by G. A. Francis Seaton, Arbroath, s. (Commistee (imp) Roland 3721, d. Scaton (imp) Johanna 5th 19202 by Geert 2nd 5695 1 R S
- 1679 V (£3)—THE TRUSTEES OF DAVID MOSLEY Smithy Farm, Buglawton, Congleton for **Clockhouse King Akira** 11321 P I, born Jan 22, 1919, bred by Trevor Williams, Pynsfield Manor, West Hyde, Larkminsworth, s. Clockhouse Rindol 7513 P I, d. Garton (imp) Akke 6th 17794 by Albert 2nd 5611 P R S
- 1676 E N ROBERT LEE JOBLING, Higham Dykes, Melbourne, Newcastle on Tyne, for **Knightley Glor Pal**

Class 200.—British Friesian Bulls, born on or between January 1 and June 30, 1923

- 1686 II (£10, & E N for Champion ³)—A. and J. BROWN, Hedges Farm, St. Albans, for **Hedges Prince Jan** 2089, born June 7, s. Wigginton (imp) Johan 4637, d. Hedges Grimsby Dutch 2490, by Hedges (imp) Loket 2nd 3993
- 1685 III (£5)—VIVIAN GEORGE HARMWORTH, Valley Holme, Horsted Keynes, Sussex, for **Thurston Karel Gunstar** 2437, born Feb 4, bred by George J. Jaron Inghiston Hall, Ramfield, Sussex, s. Kirkhill (imp) Karel 2nd 4051, d. Loxlease Noel 17778 by Wigginton Pippin 223

Class 201.—British Friesian Bulls, born on or between July 1 and December 31, 1923

- 1696 II (£10)—JAMES MAISON WOODVILLE, Broadlake, Williston, Birkenhead, for **Bulkeley Terra Dew** 2207, born Nov 19, bred by I. B. and H. L. Jarman, Bulkeley Hall, Malpas, s. Bulkeley Dewwyk 1313, d. Bulkeley Terra 37606 by Bulkeley (imp) Mictus (C.R.C. 3625)
- 1691 III (£5)—SIR VIVIAN KENDALL BUTLER, K. B. I., Bourton House, Shrivenham, Berks, for **Hardinghall Hollander** 2095, born Aug 5, bred by Major B. M. Edwards, Hardingham Hall, Norfolk, s. Deaneville Hollander 2nd 16645 P I, d. Leethill Abigail 46930 by Melford (imp) Zeppelin 4179

Class 202.—British Friesian Bulls, born on or between January 1 and June 30, 1924 ⁴

- 1710 I (£15, & E N for Champion ⁵)—EDWARD HOLINGWORTH C.B.I., Moordale, Dob (C.R.C. 1095), Yorks, for **Hache Buringa** P I, born Jan 16, bred by the Hache Herd, Muntham Home Farm, Linden, s. Hache Ceyan Ulysses 14165 P I, d. Clockhouse Vic Rinz 37868 P I by (Clockhouse (imp) Vic Wouter 3691
- 1700 II (£10)—WALTER A. BROCKHURST, Henbury Park, Macclesfield, for **Henbury Karel Conjuror** P I, born Jan 5, s. Kirkhill (imp) Karel 2nd 4051, d. Brooklands Prince's Prince 32202 P I by (Hedge (imp) Prince of Holland 4579
- 1705 III (£5)—MAJOR I. M. EDWARDS, M.C., Hardingham Hall, Hingham, Norfolk, for **Northdean Hollander** 4th P I, born June 16, bred by G. Holt Thomas Northdean House, Hingham, s. Dell Hollander 7655 P I, d. Haydon Melbloom 39404 P I by Osmaston (imp) Lits 4233
- 1701 IV (£4)—A. and J. BROWN, Hedges Farm, St. Albans, for **Hache Bacchus** P I, born March 27, bred by the Hache Herd, Muntham Home Farm, Linden, s. (Clockhouse King Akira 11321 P I, d. Scaton Johanna 30858 P I by Dunnald (imp) Cesar 2nd 3813
- 1706 V (£3)—THE LUTHERN LUTHERN, Hamels Park, Buntingford, Herts, for **Hamels Froukje's Ronald** P I, born Feb 17, s. Seaton Roland 10593 P I, d. Hedges (imp) Kroukje 2nd 18000 by (C.R.C. 4497) 1 R S
- 1711 E N—G. HOLT THOMAS, Northdean House, Hingham, High Wycombe, for **Northdean Melbloom's Beauty**

Class 203.—British Friesian Bulls, born on or between July 1 and December 31, 1924 ⁶

- 1719 I (£15)—FRANK GRIFFITHS, Lyddyn Farm, Mold, North Wales, for **Mapleton Hilko's Ironclad** P I, born Sept 14, bred by James Russell Mapleton, Ldenbridge, s. Mapleton (imp 1922) Hilko 20907, d. Larvin Hafsumer 3rd 42206 P I by Cymric (imp) Lits 3755

¹ Champion Prize of £10 given by the British Friesian Cattle Society for the best Bull in Classes 199 to 203

² The "Wobaston" Silver Challenge Cup, value £50, given through the British Friesian Cattle Society, for the best Bull, bred by the Exhibitor, in Classes 199 to 203

³ Prizes, except the Fourth and Fifth, given by the British Friesian Cattle Society

- 1718 II. (#10)—C. W. H. GLOSSOP, Lund, Beverley, for *Land Blanche's Beatty* P I., born Oct. 21, s Lund (imp 1922) *Ransche's Beatty* 20863, d Lund (imp 1922) *Blanche* 22nd 64104 by Bedford Albert 55th 1870 s A S B
- 1720 III (#5)—THE HACHE HERD, Muntham Home Farm, Findon, Worthing, for *Hache Burnse* P I., born Nov 27, s Hache Cerjan Olyasses 14165 P I., d Clockhouse Vic Rinze 37868 P I by Clockhouse (imp) Vic Wouter 3691

Class 204.—British Friesian Cows (in-milk), born in or before 1921.

- 1728 I (#15)—LORD BARNBY, Blyth Hall, via Rotherham, for *Beccles Queen Anne* 234 30, born Sept 14, 1916, calved April 15, 1925, bred by k W D Robinson, Roos Hall Beccles; s Beccles (imp) Lodewijk 3501, d Beccles Blackspot 13924 by Beccles Ingringhoes 899
- 1738 II (#10)—CAITAIN JOHN CHRISTIE, M.C., Glyndebourne, Ringmer, Lewes, for *Ferling Breeze* 8th 36182, born Aug 11, 1918, calved May 25, 1925, bred by Lord Rayleigh, Ferling, s Lavenham (imp) Gysbrecht 4077, d Ferling Breeze 6th 26718 by Ferling (imp) Vic Bertus 4541
- 1726 III (#5)—ARTHUR ALLEN, The Manor, Chesterblade, Somerset, for *Glen Werribee* 52964, born April 15, 1921, calved April 28, 1925, s Dunmald Gaatsomalschaap 6175 P I, d Ingringhoes Walnut 21080 by Moordale Victor 1809
- 1755 IV (#4)—I B and H L JARWAY, Bulkley Hall, Malpas, for *Bulkeley Aphrodite* 37562, born Oct 21, 1919, calved Dec 2, 1924 s Golt Isotermijn 2nd 63.7 P I, d Rhydbroughton Beauty 15802 by Melford Ivory 471
- 1741 V (#3)—MAJOR B. M. EDWARD, M.C., Haddingham Hall Hingham, Norfolk, for *Blenheim Braminschaap* 50756 born Sept 9, 1921 calved Jan 12, 1925, bred by the Duke of Marlborough, Blenheim, s Dunmald Gaatsomalschaap 6175 P I, d Clockhouse Brumfin 378 2 by Clockhouse Rind 7513 P I
- 1751 R N—STUART HAYTON, Poplar Farm, Iken, Tunstall, Suffolk, for *Sudbourne Dairymaid*. H. C.—1750 G.—1753

Class 205.—British Friesian Heifers (in-milk), born in 1922¹

- 1793 I (#15, & Champion²)—ATBLRI WRIGHTMAN, Middle Herrington Dairy Farm, Sunderland, for *Hamels Empress* 62124 born March 26 calved Nov 14 1924 bred by k Burnes, Hamels Park Buntingford, s Dunmald Gaatsomalschaap 6175 P I, d Pomona Queen 26192 by Cuddihall (imp) Hollander 3737
- 1787 II (#10)—EDWARD HOLLINGWORTH, C.B.D., Moordale Dobross, Yorks, for *Hache Will of the Wisp* 61958, born May 18, calved April 24, 1925, bred by the Hache Herd, Muntham Home Farm, Findon, s Clockhouse King Akkin 113.1 P I, d Muntham Verey Light 35066 by Kingswood (imp) Ynte 4047
- 1781 III (#5)—GEORGE J. LARON, Thurston Hall Framfield, Uckfield Sussex for *Thurston Mayflower* 2nd 66832, born May 22, calved May 16, 1925, s Kirkhill Michael 12055, d Teston Muscatel 42 98 by Ferling Dutchman 3643 P I
- 1788 IV (#4)—G. HOIR THOMAS, Northlean House, Hughenden, High Wycombe, for *Northlean Meibloem* 2nd 64736 P I, born Nov 5, calved June 4, 1925, s Ferling (imp) Vic Bertus 4541, d Northlean Meibloem 47738 P I by Dell Hollander 7655 P I
- 1786 V (#3)—F. ORLANDO KELLYER, The Hall Middleton on the Wolds, Driffield for *Knebworth Dawn Mist* 63210 born Sept 17 calved April 26, 1925, bred by W and R Wallace, Knebworth, s Hedges Second Series 61.7 P I, d Kingswood Dawn Mist 25194 by Kingswood (imp) Ynte 4047
- 1779 R N—A and J BROWN, Hedges Farm, St Albans, for *Thornhill Jessie*. H. C.—1783

- 1788, 1819, 1819 Trophy,³ & R N for Cup⁴—G. HOLT THOMAS, for *Northlean Meibloem* 2nd, *Northlean Barbara* and *Northlean Princess* May 2nd
- 1779, 1811, 1825 Cup⁵—A and J BROWN, for *Thornhill Jessie*, *Hedges Japhonia* and *Hedges Albert's Countess*

Class 206.—British Friesian Heifers, born on or between January 1 and June 30, 1923

- 1798 I (#15)—ETHELBERT TURNES, Hamels Park Buntingford Herts for *Hamels Florida* 71930, born May 21; s Seaton Roland 10593 P I, d Corstbar Rose 24018 by Moss (imp) Adema 49th 4223
- 1795 II (#10)—CAITAIN JOHN CHRISTIE, M.C., Glyndebourne, Ringmer, Lewes, for *Glyndebourne Breeze* 71578, born June 29, s Dunmald Haeyemalschaap 7699 P I, d Ferling Breeze 8th 36182 by Lavenham (imp) Gysbrecht 4077
- 1799 III (#5)—W. H. R. GILBERT, The Cottage, Aston Klamville, Hincley, for *Haydon Stella* 72190, born April 22 bred by Mrs Putnam Farrington Exeter, s Haydon (imp 1922) Pilot 20279, d Haydon Cherry Blossom 39440 by Routh Dutchman 6930 P I
- 1807 IV (#4)—THE TRUSTEES OF DAVID MOSLEY, Smithy Farm, Buglawton, Congleton, for *Thurston Karel Stephanos* 3rd 77006, born Feb 8, bred by G. T. Eaton, Thurston Hall J runfield, s Kirkhill (imp) Karel 2nd 4051, d Gorstage Gloaming 2nd 14854 by Gorstage Graaf 1361

¹ Prizes, except the Fourth and Fifth, given by the British Friesian Cattle Society

² Champion Prize of £10 given by the British Friesian Cattle Society for the best Cow or Heifer in Classes 204 to 209

³ Perpetual Bronze Challenge Trophy, value Fifty Guineas, given by the Friesland Cattle Breeders' Association for the best group of three British Friesian animals bred by exhibitor in Classes 199 to 200

⁴ Silver Challenge Cup, value Fifty Guineas, given through the British Friesian Cattle Society for the best group of three Cows or Heifers in Classes 204 to 209.

Awards of Live Stock Prizes at Chester, 1925. cvii

- 1803 V. (#3)—EDWARD HOLLINGWORTH, C B E, Moordale, Dobcross, Yorks, for Moordale Peggy's Johanna 74246, born June 16, s Wigginton (imp) Johan 4637, d Hedges Dutch Peggy 46868 by Hedges (imp) Fokke 2nd 399;
1802 R N—HACHF HERR, Muntham Home Farm, Findon, Worthing, for Moorside Flora. H. C.—1797

Class 207.—British Friesian Heifers, born on or between July 1 and December 31, 1923.

- 1811 I. (#15, & R N. for Champion¹)—A and J PROWSE, Hedges Farm, St Albans, for Hedges Japhomes 72244, born Oct 21, s Wigginton (imp) Johan 4637, d Hedges Honesty 3 928 by Hedges (imp) Fokke 2nd 399
1819 II (#10)—G. HORT THOMAS, Northdean House, Hughenden, High Wycombe, for Northdean Barbara 71824 P I, born Sept 15, s Northdean (imp 1922) Marthus Beatty 21081, d Clockhouse (imp 1922) Larbra 60100 by Nels Rust General Birger 817 F H B, S A
1812 III (#5)—GEORGE T TATON, Thurston Hall, Framfield, Uckfield, Sussex for Thurston Karel Daisy 2nd 70964, born July 1, s Kirkhill (imp) Karel 2nd 4051, d Colton Unique 14 36 by Colton Puritan 9
1818 IV (#4)—EDWARD HOLLINGWORTH, C B E, Moordale, Dobcross, Yorks, for Moordale Pauline 74244 P I, born Sept 21, s Moordale (imp 1922) Paul 20467, d Moordale Winnamgen 55126 P I by Marsh (imp) General 4157
1816 V (#3)—W H R GILBERT, The Cottage, Aston Farmville, Hineckley, for Astonville Jane 67984, born Oct 9, s Terling (imp 1922) Marthus 21534, d Terling Jane 6th 57330 by Terling Trojan 9411 P I
1813 R N—GEORGE T TATON, for Thurston Karel Marguerite 2nd

Class 208.—British Friesian Heifers, born on or between January 1 and June 30, 1924²

- 1838 I. (#15)—EDWARD HOLLINGWORTH, C B E, Moordale, Dobcross, Yorks, for Moordale Pauletta, born Jan 8, s Moordale (imp 1922) Paul 20965, d Moordale Bouquet 8rd 47524 by Wychnor (imp) Ymo 4700
1825 II (#10)—A and J PROWSE, Hedges Farm, St Albans, for Hedges Albert's Countess, born Jan 24, s Petygards (imp) Bles Albert 4 21, d Wigginton Dutch Countess 27078 by Wigginton (imp) Johan 4637
1839 III (#5)—G. HORT THOMAS, Northdean House, Hughenden, High Wycombe, for Northdean Princess May 2nd, born March 22, s Northdean (imp 1922) Marthus Beatty 21081, d Northdean Princess May 55622 by Dell Hollander 7655 P I
1844 IV. (#4)—BETHAN LARKINSON, Creskeld Hall, Arthington, Yorks, for Creskeld Hazeline 2nd, born Feb 21, s Creskeld (imp 1922) Chicf 19709, d Brooklands Hazeline 27728 by Reddown (imp) Murk 4377
1829 V (#3)—MAJOR B M LEWARD, M C, Hardingham Hall, Hingham, Norfolk, for Hardingham Brammingschap, born Jan 4, s Donside Hollander 2nd 16645 P I, d Dinholm Brammingschap 50756 by Dunsdale Gautsom d'raap 6175 P I
1828 R N—GEORGE T TATON, Thurston Hall, Framfield, Uckfield, for Thurston Ynte Ellen. H. C.—1842. C.—1845

Class 209.—British Friesian Heifers, born on or between July 1 and December 31, 1924²

- 1864 I. (#15)—LEONARD & BROWN, Primrose Dairy Farm, Mirfield, Yorks, for Primrose Molly, born July 1, s Lund (imp 1922) Kensch's Beatty 20863, d Pomona Amy 30504 by Gortage (imp) Mielje's Victor 3939
1853 II (#10)—GEORGE T TATON, Thurston Hall, Framfield, Uckfield, Sussex, for Thurston Karel Jeltje P I, born Aug 14, s Kirkhill (imp) Karel 2nd 4051, d Terling Jeltje 2nd 42300 P I by Terling (imp) Verwachting 4543
1860 III (#5)—G. HORT THOMAS, Northdean House, Hughenden, High Wycombe, for Northdean Dieuwke 2nd P I, born July 1, s Dell Hollander 7655 P I, d Northdean (imp 1922) Dieuwke 64782 by Marten 806 S A B
1852 IV (#4)—GEORGE T TATON, for Thurston Karel Anemone 2nd, born Aug 30, s Kirkhill (imp) Karel 2nd 4051, d Pomona Anemone 30506 by Gortage (imp) Mielje's Victor 3939
1863 V (#3)—MRS S JOHNSON, The Gladys, Ilkeshere, Salop, for Gladys Rolands Daisy 2nd, born July 2, s Havels Roland 20227, d Haslington Buttercup 45698 by Monkton Warrior 10277
1849 R N.—JOHN BROMET, Golf Links Farm, Tadcaster, for Golf Dorander. H. C.—1857. C.—1858

¹ Champion Prize of £10 given by the British Friesian Cattle Society for the best Cow or Heifer in Classes 204 to 209

² Prizes, except the Fourth and Fifth, given by the British Friesian Cattle Society.

Ayrshires.

Class 210.—*Ayrshire Bulls, born on or before September 1, 1924*

- 1872 I (£15)—JAMES HOWIE, Hillhouse, Kilmarnock for **Hobland Duplicate** 22581 born March 25 1922 bred by Thomas Barr, Hobland Monkton, s Hobland Lucky Boy 16482 d Hobland Lovely 5th 51072 by Hobland Perfect Piece 10665
1871 II (£10)—THOMAS BARR Hobland Monkton Ayrshire for **Carston Here's Luck** 22378, born Feb 8 1922, bred by James B Crawford Carston Castle Douglas, s Hobland Lucky Star 19397 d Carston Pink 1st A 221 by Chapmanton Snowflake 7150
1874 III (£5)—JAMES HOWIE for **Millantae Better Still**, born March 15 1924 bred by John Johnstone Millantae Lockerbie s Bargenoch Nugget 18484, d Millantae Mayflower 58092 by Overton Hiawatha 11054

Class 211a.—*Ayrshire Cows (in milk), born on or before September 1, 1921*

- 1881 I (£15)—JAMES HOWIE Hillhouse, Kilmarnock for **Friendlesshead Blossom** 4th 40942, born in April 1913 calved June 12 1923, bred by J Hodgk Friendlesshead Mauchline, s Craighead Guardsman 9578 d Friendlesshead Blossom A 403 by Whitehill Fortune 5109
1887 II (£10)—JACOB S MURRAY, Dalgig, New Cumnock for **Dalgig Keepsake** 86637 born in March 1920 calved May 31 1923, s Dalgig General French 14533 d Carston Cinderella 3rd 36326 by Carston Merry King 93
1878 III (£5)—MAJOR C RANDOLPH DUDGEON, Cargen Holm, Dumfries for **Cargen Holm Daisy** 4th 73716 born Nov 2 1917 calved April 6 1923, s Cargen Holm Baron Lindsay 15484 d Cargen Holm Daisy 2nd 5062 by Langside Rich and Rare 1039
1879 R N—MAJOR C RANDOLPH DUDGEON, for **Cargen Holm Miss Robb** 7th C—1885

Class 211b.—*Ayrshire Cows (in calf), born on or before September 1, 1921*

- 1882 I (£15)—JOHN JOHNSTONE Millantae, Lockerbie, for **Millantae Mayflower** 58092 born April 3 1917 s Overton Hiawatha 11054 d Chapelcrae Lower 2nd 38306 by Chapmanton Harmer 8703
1876 II (£10) ALEXANDER COCHRANE, Nether Craig Kilmarnock, for **Beuchan Heather** 2nd 56702 born Dec 1 1918 bred by the Misses Allan Beuchan Thornhill s Hobland First Choice 16478 d Beuchan Heather 4983 by Beuchan Toddle Ben 9530
1886 III (£5)—JACOB S MURRAY Dalgig, New Cumnock for **Carston Rhoda** 52271 born April 1915, s Carston St Thomas 7904 d Carston Cinderella 2nd 36326 by Carston Merry King
1877 R N—JOHN COCHRANE, Byreholm, Thornhill for **Maqueston Mayflower** H C—1880 C—1888

Class 212.—*Ayrshire Cows or Heifers (in milk or in calf), born after September 1, 1921*¹

- 1891 I (£15)—THOMAS BARR, Hobland, Monkton for **Hobland Violet** 4th 88594 born Nov 15 1922 s Hobland Lucky Boy 16482, d Hobland Violet 3rd 68010 by Thornhill Sir George 17319
1893 II (£10)—JOHN COCHRANE Byreholm, Thornhill for **Byreholm Viper** 2nd 90589 born Aug 28 1922 in calf s Cairnmill Lord Glenside 20970, d Byreholm Viper 85789 by Morton Muirs Militant 14477
1892 III (£5)—ALEXANDER COCHRANE, Nether Craig Kilmarnock for **Nether Craig Randy** 89807 born Sept 16 1921 calved May 20 1925, bred by J Wilson Boghead Mouswald Dumfries, s Nether Craig Magnet 18370, d Boghead Randy 64030 by Boghead Dainty Davie 9404

Guernseys.

N B—Unless otherwise stated the numbers refer to the *English Guernsey Herd Book*,

Class 213.—*Guernsey Bulls, born in or before 1922*

- 1899 I (£15, & Champion)²—GEORGE BLIGHT & SON, Trengwanton Breage, Helston, for **Tregenna May Bird** 4961, yellow and white, born April 20 1922, bred by the Great Western Railway Co., Tregenna Castle Hotel, St Ives, Cornwall, s Herriard Dandy 3954, d Tregenna Lady May 14909 by Trengwanton Bold Robin 3818
1898 II (£10)—A CHRYSLER BRATBY, Calchill Park Little Chart, Kent, for **Yvonne's Honour** 5711, fawn and white born May 5 1920 bred by A Gavet L'riquet de Haut Castel Guernsey s Decolt of King's Mills 4108 P 3, R G A S d Golden Yvonne of Ashburton 14091 P 3, R G A S by Deane's Squire 2734 P 3, R G A S
1900 III (£5)—J B BODY, Hindhead Court, Hindhead, Surrey for **Hindhead Governor** 4842 fawn and white, born Oct 24 1922, s Governor 4th des Ruettes 3718, d Rosey of Goodnestone 12343 by Gunner 3rd 2459

¹ Prizes given by the Ayrshire Cattle Herd Book Society

² Champion Prize of £5 given by the English Guernsey Cattle Society for the best Bull in Classes 213 to 215

- 1896 IV. (#4).—W A. ARGENT, Ghyll Manor, Ruspur, Sussex, for Governor of Myrtle Place 5th 5445, fawn and white, born May 29, 1919, bred by Ernest de Garis, Myrtle Place, Castel, Guernsey, s Valentine Honour of the Pasce 1826, d La Fleur du Jardin 12th 5619 P S, R G A S by Governor of the Chene 1297 P S, R G A S
- 1902 R N—SIR HARRY GOSCHEN, K B E, Durrington House, Hailow, for Hunguets Des Bas Hope 2nd.

Class 214.—Guernsey Bulls, born in 1923

- 1907 I. (#15, & R N for Champion '1)—W A ARGENT, Ghyll Manor, Ruspur, Sussex, for Lynchmere Lord Roberts 20th 5335, fawn and white, born Aug 31, bred by Mrs Pratt Barlow, Lynchmere, Surrey, s Roberts Boy's Sequel 496, d Iregye Coral 1483 by Ladock Prince Charming 3165
- 1912 II. (#10)—JOHN A. KAY, Ravenscroft Hall Middlewich, for Elfordleigh Major 5021, fawn and white, born April 10, bred by Mrs R C Banbridge, Elfordleigh, Plympton, s Elfordleigh Jewel 4470, d Elfordleigh Maggie 2nd 15316 by Hammill of Marazion 3434
- 1906 III. (#5)—W A ARGENT for Honour of the Cloture 5334, fawn and white, born Jan 19, bred by N Ogier, Cloture Cottage, Castel, Guernsey, s Nellie's Ideal 4522 P S, R G A S, d Primrose of the Cloture 18400 P S, R G A S by Governor of Lily Vale 3853 P S, R G A S
- 1914 IV. (#4)—VISCOUNT TACFITS, K G, Gildsborough Hall, Knarston, for Goldborough Golden Prince 5121, fawn and white, born June 29, s Bittleware Princeling 328, d Bosistow Marigold 11154 by Godolphin Sambo 2450
- 1910 R N—GEOFFREY BLIGHT & SON, Iregonning, Brage, Helston for Hornblotton Golden Arch.

Class 215.—Guernsey Bulls, born in 1921

- 1925 I. (#15)—LORD POLIMORE, Court Hall North Mclton, for Polimore Trojan 5515, fawn and white, born June 14, s Pearl's Majestic 991, d Trifol of Diamond 1491 14808 by Hunguets de Bas Winsome 3643 P S, R G A S
- 1916 II. (#10)—W A ARGENT, Ghyll Manor Ruspur Sussex, for Ghyll Valentine's Honour 5602 fawn and white, born July 21, s Downe Valentine's Honour of Vimera 331, d Downe Dayle 14290 by Saylor Ltd of the Fontaines 3725 P S, R G A S
- 1919 III. (#5)—J B BODDY, Hindhead Court, Hindhead, Surrey for Hindhead Robert 3rd 5163, fawn and white, s Lynchmere Lord Roberts 15th 3982, d Morland Lady Richmond, 1788 by Slocum's Climax 4035
- 1922 IV. (#4)—MRS I H ILLVOISE, Herriard Park Basingstoke, for Herriard Honour Bright 5661 fawn and white, born Aug 15, s Herriard Valentine's Honour 4837, d Herriard Sweet 3rd 17868 by Herriard Lanny's Oaseo 4224
- 1920 V. (#3)—MRS I. SAINSBURY, Blunts Hall Little Wratting, Haverhill for Downe Valentine's Honour of Vimera 7th 5364, fawn and white, born Jan 2, bred by D C Hallman, Hayes, Kent, s Downe Valentine's Honour of Vimera 3913, d Downe Fleur of Vimera 14281 by Valentine's Honour of the Pasce 3826
- 1923 R N—MISS MRS C NORMAN, Moor Place, Much Hadham, for Honeymoon Prince of Hadham
- H C—1921 C—1917

Class 216.—Guernsey Cows (in milk), born in or before 1920

- 1928 I. (#15, & Champion '1)—W A ARGENT, Ghyll Manor, Ruspur, Sussex for Flora's Buttercup of the Fountain 20989, fawn and white, born Dec 16, 1918, calved May 22, 1923, bred by W B Burton, Mount Union, St Simpson Guernsey, s Buckleigh 4712 P S, R G A S, d Flora 6th of the Fountain 13934 P S, R G A S by Clara's Sequel 2207 P S, R G A S
- 1935 II. (#10)—WALTER DUNKEL, Fernhill Park, Windsor Forest, for Starlight Broom 15836, fawn and white, born April 20, 1919, calved June 3, 1923, bred by Mrs Martin in Broom Hill, Sunningdale, s Hurst's Red's Jewel 2nd 3543, d Bittleware Starlight 2nd 9868 by Bittleware Robin 2nd 2415
- 1946 III. (#5)—SAMUEL SYMMONS, Trevarthian Marazion, Cornwall, for Trevarthian Favourite 14878, yellow and white, born Feb 20, 1918, calved April 5, 1925, bred by the late W Symmons, Governors, Kenwyn, Marazion, s Governor George 2nd 3330, d Governor's Favourite 8992 by Ladock Dairyman 2049
- 1937 IV. (#4)—MRS J I LILLY, Wrea Head Farm, Scalby, Scarborough for Rowanberry 31st 15754, fawn and white, born April 11, 1920, calved June 15, 1923, s Donnington Charming 2nd 3113, d Rowanberry 12th 10319 by Hayes Imperator 2222
- 1944 V. (#3)—SIR JAMIE REMNANT, LART, M P, The Grange, Hare Hatch, Fwyforl, for Dene Lady Hester 15219, fawn and white, born May 24, 1920, calved March 27, 1925, s Dene Lodge Star 3303, d Lady Hester of Rozel 14680 by Polly's Trick of the Spurs 4480 P S, R G A S
- 1930 R N—A CHRYSTER BLATTY, Culehill Park, Little Chart, Kent, for Golden Queen of Goodnestone.
- H C—1936

Class 217.—Guernsey Cows or Heifers (in-milk), born in 1921 or 1922

- 1962 I. (#15, & R N for Champion '1)—MISS MRS C NORMAN, Moor Place, Much Hadham for Hadham Marigold 4th 16540, fawn and white, born March 17, 1921, calved May 23, 1925, s Ladock Prince Albert 3500, d Hadham Marigold 12099 by Hadham Gold-ocker 2766

¹ Champion Prize of £5 given by the English Guernsey Cattle Society for the best Bull in Classes 213 to 215

² Prizes, except Fourth and Fifth, given by the English Guernsey Cattle Society

³ Champion Prize of £5 given by the English Guernsey Cattle Society for the best Cow or Heifer in Classes 216 to 218.

- 1953 **II** (#10)—J B BODY, Hindhead Court, Hindhead, Surrey, for *Morland Lady Richmond* 16788, fawn and white, born Feb 15, 1921 (calvd June 10, 1925, bred by G F I errand, Morland Hall, Alton, s Slogans Climax 403), d *Richmond s Zoe of la Ruette* 13845 by Ivy's Emblem 3804
- 1964 **III** (#5)—WILLIAM ROACH, Irewidden Farm, Penzance, for *Trewidden Gladious 3rd* 18170, lemon and white, born Sept 3, 1922, calvd May 4, 1925, s *Frewidden Magnet* 4317, d *Trewidden Gladious 2nd* 15940 by Chywoone Koli Nut 329
- 1956 **IV** (#4)—MISS HARRIET, Nazing Park, Waltham Cross, for *Nazing Mangold* 18118, fawn and white, born April 16, 1921, calvd April 24, 1925, bred by the late W Lawrence, Bekkers Farm, Nazing, s *Durrington Rose King des Houards* 3685, d *Kingsmoor (olden Mild 4th 101)* by Kingsmoor Count 2320
- 1958 **V** (#3)—MRS L H I JERVOIS, Herriud Park, Basingstoke, for *Cloth of Frie Baton* 19924, fawn and white, born Sept 19, 1922 calvd March 17 1925, bred by I Browning, Nordots, St Andrews, Guernsey, s *Cyrus Lad of the houbettes 4th 21 S*, R G A S, d *Cloth of Gold 7th 10951 P S*, R G A S by Billy s France 2194 P S, R G A S
- 1959 **R N**—MRS I H T JERVOIS, for *Hernard Dora 3rd*.
H C—1960 C—1954

Class 218.—Guernsey Heifers, born in 1923

- 1973 **I** (#15)—VISCOUNT LASCELLES K G, Goldsborough Hill, Knarborough for *Goldsborough Margaret* 19908, fawn and white, born March 4 s *Claremont King Cup* 4429, d *Claremont Princess Daisy* 15154 by Brittleware Princeing 328
- 1968 **II** (#10)—GEORGE BLIGHT & SON, Tregonning Breage, Helston for *Jane of Tregonning 7th* 18703, yellow and white, born April 30, s *Luddington Loreador* 4296, d *Tregonning Jane 3rd* 14816 by Hammill of Marazion 334
- 1967 **III** (#5)—A CHESTER BRATTY, Calehill Park, Little Hart, Kent, for *Calehill Peaceful* 18659, fawn and white, born Feb 14, s *Lura's Slogan 4th 18 P S*, R G A S, d *Peace Poundstock* 1814 by Lenore s Sequel of Vindera 4247
- 1966 **R N**—A CHESTER BRATTY, for *Calehill Lizzie*

Class 219.—Guernsey Heifers, born in 1924.

- 1981 **I** (#15)—J B BODY, Hindhead Court, Hindhead Surrey, for *Hindhead Poppy* 20420, fawn and white, born May 12 s *Vynchmere Lord Roberts 15th* 3982, d *Hindhead Polly* 16802 by Slogan de Bon L'epoir 4317
- 1979 **II** (#10)—GEORGE BLIGHT & SON, Tregonning, Breage, Helston, for *Penbeagle Laughter* 20312, yellow and little white, born April 26 bred by F H Best, Albart House, St Ives, Cornwall, s *Stendrine Gay Lad* 4640, d *Saint Jil* 16977 by Ingow Gay Boy 2nd 306
- 1985 **III** (#5)—T FRANKS, Netherleigh Hayle, for *Netherleigh Bluebell* 20722, fawn and white, born May 22 s *Vynchmere Lord Roberts 1th* 3748, d *Boscarn Butter Queen* 1507 by Stagenhoe Duke 2nd 36
- 1990 **IV** (#4)—WILLIAM ROACH, Irewidden Farm, Penzance, for *Trewidden Bella 3rd* 20387, lemon and white, born May 14 s *Irewidden (Cappilite 4982, d Bella of the G'pnel* 13258 by Brilliant of the G'ce 4th 3822 I S, R G A S
- 1989 **V** (#3)—VISCOUNT LASCELLES, K G, Goldsborough Hill, Knarborough, for *Goldsborough Mayflower* 21083, born Aug '21 s *Pilmrose Bullfounder* 5108, d *Bodistow Marigold* 11154 by Godolphin Samlo 2150
- 1980 **R N**—J B BODY, for *Hindhead Polly 4th*
H C—1988 C—1987

Jerseys.

N B—In the Jersey Classes, the number inserted within brackets after the name of an animal indicates the number of such animal in the *Isard d Herd Book*. A number without brackets indicates that the animal is registered in the *English Jersey Herd Book*

Class 220.—Jersey Bulls, born in or before 1922.

- 2001 **I** (#15, & Champion ¹)—R BRUCE WARD, Godinton, Ashford, Kent, for *Canterbury Pilgrim* 14561, broken colour, born April 9, 1921, s *Pilgrim* 13699, d *Caper* by Capelum 10832
- 1997 **II** (#10)—COLONEL LIONEL G GIBBONS, C M G, Itingen Hall, Bampton Brian, Herefordshire, for *Ocean Premier* 14065, whole colour, born Jan 19, 1921, bred by N du Fou Trinity, Jersey, s *Masterman of Oaklands* 13020, d *Ocean Dairy Cowslip* (25023) P S, H C by Dalrymple s Majesty 12593
- 2000 **III** (#5)—I LUSTAL SMITH, Wormingford Grove, Wormingford, Essex, for *Danbury Majestic* 13901, whole colour, born Aug 17 1920 bred by Brig General J L Wigan, (B Danbury, Essex, s *Red Lnsign* 13307, d *Mitylene* by Topsy's Noble 10116
- 1995 **R N**—MRS HIRTHAM CATER, Bentworth Lodge, Alton, Hants, for *Cupid*
H C—1998, 2002.

Class 221.—Jersey Bulls, born in 1923.

- 2006 **I** (#15, & R N for Champion ¹)—H S MOUNTAIN, Groombridge Place, Kent, for *Sir Laurel*, broken colour, born May 11, bred by R Bruce Ward, Godinton, Ashford, Kent; s *Saint Louis* 14778 d *Lvergreen* (Vol 31, p 273) by Catillon's Prince 11639

¹ Champion Prize of £5 given by the English Jersey Cattle Society for the best Bull in Classes 220 to 222

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- 2004 **II. (#10).**—GEORGE CROSS, Smarts Hill House, Penshurst, Kent, for *Gloxaha's Penshurst Pilgrim*, whole colour, born May 18, s Canterbury Pilgrim 14561, d Gloxaha 2nd (Vol 33, p 330) by King Capsicum 12920
 2005 **III (#5)**—MAJOR A W HUNTINGTON, Wellesbourne House, Warwick, for *Royal Woodland Hero*, whole colour, born May 19, bred by C Wilson, St Marys, Jersey, s Xenia's Sultan 13736, d Royal Carus 3rd by General Cowslip 10960
 2003 **R N**—R W CARSON, Lea Hall, Hatfield Heath, Harlow, for *Holmwood Volunteer*.

Class 222.—Jersey Bulls, born in 1924.

- 2012 **I (#15)**—GEORGE CROSS, Smarts Hill House, Penshurst, Kent, for *Penshurst Coeur De Lion*, whole colour, born April 19, s Penshurst Yellow Prince 14412, d Gloxaha 2nd (Vol 33, p 330) by King Capsicum 12980
 2013 **II (#10)**—MRS EVELYN, Wotton House, Dorking, for *Wotton Ace De Trefles*, broken colour, born April 25, s Wotton Aliman 2nd 14502, d Wotton Queen of Clubs (Vol 35, p 480) by Ace's Prince 14466
 2021 **III (#5)**—R BRUCE WARD, Godinton, Ashford Kent, for *Pommery's Fox*, whole colour, born March 11, s Marionette's Fox 13633, d Pommery (Vol 33 p 404) by Prometheus 1391
 2009 **IV (#4)**—MRS HARRY BRIGGS, The Grange, North Stoke, Willingford, for *North Stoke's Glory*, whole colour, born March 31, s Canterbury Pilgrim 14561, d Petune's Victory (Vol 30, p 989) by Petune's Lad (5438) P S
 2014 **V (#3)**—F B IMBERT-FERRY, Blue Hayes, Broad Clyst, Devon, for *Blue Hayes Felix the Cat*, whole colour, born May 10, s Hunstrete Tuneful Lad 14322, d Blue Hayes Kitten (Vol 37, p 75) by Pro Boccus 13085
 2010 **R N**—R W CARSON, Lea Hall, Hatfield Heath, Harlow, for *Crystal Volunteer*.

Class 223.—Jersey Cows (in-milk), born in or before 1921.

- 2000 **I (#15, & Champion *)**—GEORGE CROSS, Smarts Hill House, Penshurst, Kent, for *Roberta Star 2nd*, broken colour, born Oct 13, 1920, calved April 10, 1925, bred by J Laurens, St Lawrence, Jersey, s Sybil's Gambrige 3rd, d Roberta's Star by Kingway
 2032 **II (#10, R N for Champion, & Special, #10 *)**—MRS EVELYN, Wotton House, Dorking, for *Wotton Pink May* (Vol 0 p 100) broken colour, born July 25, 1916, calved May 27, 1925, s Red Cloud 11819 d Lady May (Vol 22, p 341) by Royal Reward 9413
 2024 **III (#5)**—MRS HARRY BRIGGS, The Grange, North Stoke, Willingford, for *Petune's Victory 989*, whole colour, born Aug 26, 1918, calved May 11, 1925, bred by R Hervé, St Lawrence, Jersey, s Petune's Lad 13068, d Running Water (23340) P S, C by Anemone's Leda's Ind 125
 2045 **IV (#4, & Special, #5)**—R BRUCE WARD, Godinton, Ashford, Kent, for *Miranda's Lass* (Vol 33 p 384), whole colour, born Nov 5, 1919, calved March 10, 1925, s Marionette's Lad 13351, d Mirawne Miranda by Sir Toby 12154
 2036 **V (#3)**—F B IMBERT-FERRY, Blue Hayes, Broad Clyst, Devon, for *Blue Hayes Cat* (Vol 31 p 234), whole colour, born March 13, 1919, calved June 7, 1925, s Hotspur 12657, d Catherine by Royal Castle 1183
 2028 **R N**—R W CARSON, Lea Hall Hatfield Heath, Harlow, for *Sweet Bread 46th*.
H. C.—2037, 2042, 2046 **C**—027, 2049

Class 224.—Jersey Heifers (in milk), born in 1922.

- 2003 **I (#15)**—COLONEL HONOUR G GIBBONS, C M G, Lincoln Hall Brampton Brian, Herefordshire, for *Cid's Raleigh Spectre*, black, born March 1, calved April 28, 1925, bred by A V Godfrey St Brelades, Jersey, s Cid's Inkerman (5873), d Christmas Spectre 23286 by Drury Actor (4077)
 2050 **II (#10)**—GEORGE NORBERRY, Mount Bures, Bures, Suffolk, for *Postmistress* (Vol 34, p 18), whole colour, born Jan 23, calved Jan 19, 1925, s Lord Blackberry 13641, d Postage 2nd by Verdun 12789
 2055 **III (#5)**—F S PIDDUCK, The Woodlands, Alsager, Cheshire, for *Holmwood Violet*, whole colour, born Feb 21, calved June 15, 1925, bred by A S Holdern, Holmwood Lodge, Dorking s Rakyns Black Knight 13716, d Judy's Violet (Vol 32, p 350) by Petune's Lad 13068
 2058 **IV. (#4)**—R BRUCE WARD, Godinton, Ashford, Kent, for *Pallida Iria*, whole colour, born May 21, calved April 15, 1925, s Paladin 14406, d Princess Ida (Vol 33, p 408), by Prometheus 13311
 2052 **R N**—GEORGE CROSS, Smarts Hill House, Penshurst, Kent, for *Penshurst Sybil*.
H. C. 2051, 2053 **C**—2054

Class 225.—Jersey Heifers (in-milk), born in 1923 *

- 2074 **I. (#15)**—R BRUCE WARD, Godinton, Ashford, Kent, for *Gladys* (Vol 35, p 174), whole colour, born Feb 4, calved May 30, 1925, s Berthe's Raleigh 13830, d Gladstone 650 by Vesta's Oxford Liddle 13781

* Champion Prize of £5 given by the English Jersey Cattle Society for the best Cow or Heifer in Classes 223 to 226

* Special Prizes of £10 (First Prize) and £5 (Second Prize), given by the English Jersey Cattle Society for Cows or Heifers in Classes 223 to 225, bred by Laxhibitor, and in Great Britain or Ireland, and milked out to the Judge's satisfaction before being judged.

* Prizes, except Fourth and Fifth, given by the English Jersey Cattle Society.

- 2071 II (#10)—OSCAR F ROWNTREE, Cherry Hill, Brandsby S O, Yorks, for **Wotton Aurelia**, whole colour born Jan 25, calved May 4, 1925, bred by Mrs Evelyn, Wotton House, Dorking, s Wotton Airman 14171, d Wotton Belustria (Vol 31, p 420) by Illustratus 10289
- 2063 III (#5)—MRS EVELYN, Wotton House, Dorking, for **Wotton May Moon**, black born June 19, calved June 12, 1925, s Wotton Airman 2nd 14502, d Wotton Pink May (Vol 30, p 400) by Red Cloud 11818
- 2085 IV (#4)—MAJOR A W HUNTINGTON, Wellesbourne House, Warwick, for **Hilda**, whole colour, born Feb 7, calved June 29, 1925, bred by A W Ruggles Brise, Spains Hall, Brantree, Essex, s Park Keeper 14403, d Hamletta 5th (Vol 30, p 292) by Combination 2nd 11644
- 2061 V (#3)—GEOFF CROSS, Smarts Hill House, Penshurst, Kent, for **Doreen**, whole colour, born March 4, calved May 3, 1925, bred by A W Ruggles Brise, Spains Hall, Brantree, Essex, s Park Keeper 14409, d Lady Daphne (Vol 31, p 361) by Minorca Jolly Sultan 12078
- 2067 R N—FLOUT COLONEL C KERR, DSO, D'Anvers House, Colworth, Northampton, for **Jessy's Sultana**

Class 226.—Jersey Heifers, born in 1924.

- 2096 I (#15)—R BRUCE WARD, Godinton, Ashford, Kent, for **Lepidoptera**, whole colour, born March 1, s Sult Louis 147, d Livetham Buttery by Anna s Sult in 13798
- 2079 II (#10)—MRS LVELYN, Wotton House, Dorking for **Wotton Cloud Bank**, whole colour, born April 17, s Wotton Airman 2nd 14502, d Wotton May Cloud (Vol 32, p 482) by Red Cloud 11818
- 2082 III (#5)—MAJOR A W HUNTINGTON, Wellesbourne House, Warwick for **Wellesbourne Mermaid**, broken colour, born July 20, s Ulysses 14489, d Clare of Meadow View 1d (Vol 31, p 231) by Gaulds 1576
- 2077 IV (#4)—GEOFF CROSS, Smarts Hill House, Penshurst Kent for **Winsome**, whole colour, born Feb 19, bred by A J Renouf, Glanville, Reading, s Broadlandson 12858, d Las Haux Dorothy by Petunia 1st 13065
- 2095 V (#3)—L I LITTON, The Priory, Stevenage, for **Stevenage Starlight**, whole colour born May 1, s Bowline s Bright Prince, d Spring Starlight (Vol 31, p 133) by Prince Prudence 2nd 1338
- 2087 R N—H S MOUNTAIN, Groombridge Place, Kent, for **Brampton Farm Bowhna**
H C—2075, 2076, 2080, 2081 C—208, 2086, 2088

Kerries.

N B—In the Kerry Classes the number inserted within brackets after the name of an animal indicates the number of such animal in the Irish Kerry Herd Book. A number without brackets indicates that the animal is registred in the British Kerry Herd Book.

Class 227.—Kerry Bulls, born in or before 1923

- 2097 I (#15, & Champion 1)—I CURRIE, Minky Minor, Farnborough Hants, for **Hattingley Arthur** 688, born Feb 7, 1922, bred by Ambrose and William Milne, West Linstead, Hants, s Waterville Lord 424, d Coquet Alce 1795 by Muldum 223
- 2101 II (#10)—THE KERRY ESTATES, LTD, The Warren House, Stanmore, Middlesex, for **Valencia Sammy** 670, born Feb 25, 1923, s Valencia Czar 54, d Valencia Stella 3247 by Valencia Cupbearer (953)
- 2100 III (#5)—THE KERRY ESTATES, LTD, for **Raven of Carlton** 661 born April 17, 1923, bred by the Duke of Leinster Maynooth, Co Kildare, s Bushmount Rory 634, d Drifpinium 31st of Carlton (4033) by Prince 6th of Carlton (771)
- 2098 R N—THE LIMHURST FARMING AND TRADING CO, LTD, Limhurst Farm, Slinfold, Sussex, for **Valencia Perry**

Class 228.—Kerry Bulls, born in 1924

- 2104 I (#15)—LADY FITZGERAID, Buckland House, Lavingdon, for **Buckland Duke** (Vol 25, p 23), born June 14, s Buckland Viking 470, d Buckland Strawberry 2104 by Raspberry Duke 331
- 2106 II (#10)—BRIG GENERAL G IL PAIMER, Birtleyfield, Bradford on Avon, for **Lanky King** Cole 661, born April 21, s Valencia Linkman 406, d Coquet Geranium 2246 by Coquet Duke 580
- 2103 III (#5)—THE LIMHURST FARMING AND TRADING CO, LTD, Limhurst Farm, Slinfold, Sussex, for **Elmhurst Druid** 643, born May 8, s Hattingley Buck 680, d Vaddy Casibeg 2nd 2436 by Vaddy Warrior 410
- 2105 R N—THE KERRY ESTATES, LTD, The Warren House, Stanmore, Middlesex, for **Valencia Master**

Class 229.—Kerry Cows (in milk), born in or before 1921.

- 2111 I (#15, & R N for Champion 1)—THE KERRY ESTATES, LTD, The Warren House, Stanmore, Middlesex, for **Valencia Eileen** 3rd 2798, born March 14, 1916, calved May 6, 1925, bred by the Knight of Kerry, Valencia Island, Kerry, s Valencia Lord 1st (782), d Valencia Lilian 2nd (3778) by Gort Prince (836)

¹ Silver Challenge Cup, value Twenty five Guineas, given by the British Kerry Cattle Society, for the best animal in Classes 227 to 231

- 2113 **II. (#10).**—**BRIG GENERAL G. L. PALMER**, Berryfield, Bradford on Avon, for **Coquet Geranium** 2246, born April 22, 1917, calved April 27, 1925, bred by Captain J. L. Ames, Thistledown, Longhorsley, s Coquet Duke 380, d Walton Lanky 2nd 1864 by Walton Diver 270
- 2108 **III. (#5).**—**THE LLMHURST FARMING AND TRADING CO., LTD.**, Llmhurst Farm, Slinfold, Sussex, for **Flora of Carton** 2373, born March 23, 1917, calved April 11, 1925, bred by the Duke of Leinster, Carton, Maynooth Co. Kildare, s Prince 6th of Carton (771), d Lomigranate 2nd of Carton (3716) by Ormeau Labyrinth (652)
- 2110 **R. N.**—**THE KERRY STATES, LTD.**, for **Ruby of Carton**.
H. C.—2114.

Class 230.—Kerry Heifers (in milk), born in 1922 or 1923.

- 2115 **I. (#15)**—**THE LLMHURST FARMING AND TRADING CO., LTD.**, Llmhurst Farm, Slinfold, Sussex, for **Elmhurst Bubbles** 3341, born Nov. 18, 1922, calved May 17, 1925, s O. P. H. Primrose Watersheen 446, d Viddy Cabbage 2nd 2496 by Viddy Warro 419
- 2116 **II. (#10)**—**THE KERRY STATES, LTD.**, The Warren House, Stanmore, Middlesex, for **Moss Rose** 3631, born March 13, 1922, calved May 1, 1925, bred by G. Hume, Carton, Maynooth, Kildare, s Valonia Harold 494, d Delphinium 29th of Carton (3963) by Prince 6th of Carton (771)
- 2117 **III. (#5)**—**THE KERRY STATES, LTD.**, for **Muckross Agnes** 363, born May 3, 1922, calved May 9, 1925, bred by A. R. Vincent, Muckross Abbey, Killarney, s Muckross Playboy of the Western World 558, d Duv Agnes (4322) by Duv Timothy (798)
- 2120 **R. N.**—**BRIERLEY W. A. WATNEY**, Chaldon Mead, Caterham, for **Behnda of Warren**

Class 231.—Kerry Heifers (not in-milk), born in 1923 or 1924¹

- 2121 **I. (#15)**—**L. CURRIE**, Minley Manor, Iarnborough Hants, for **Minley Dorothy** (Vol. 21, p. 1), born March 23, 1923, s Sloe Drop 415, d Minley Midget 2446 by Valencia Lord 470
- 2130 **II. (#10)**—**THE KERRY STATES, LTD.**, The Warren House, Stanmore, Middlesex, for **Duv Tereeta** 3361, born March 4, 1923, bred by John O'Neill (hilton) (Croschouses, Shrewsbury) s Duv Damon 610, d Duv Tigress 3526 by Duv Libber (785)
- 2127 **III. (#5)**—**LADY LITTONALD**, Buckland House, Wokingdon, for **Minley Curley**, born May 7, 1924, bred by Lawrence Currie, Minley Manor, Iarnborough, s Minley Major 513, d Minley Lathie 1930 by Minley Rover 287
- 2129 **IV. (#4)**—**C. P. HUNTER**, Redland House, Hough Green, Chester, for **Rho. Ucha Helpmate** 3721, born Jan. 6, 1924, s Collage Pat 504, d Durrquin Woodrop 2055 by Black Prince of Cluragh 539
- 2122 **V. (#3)**—**THE LLMHURST FARMING AND TRADING CO., LTD.**, Llmhurst Farm, Slinfold, Sussex, for **Elmhurst Dahlia** (Vol. 25, p. 21), born Feb. 25, 1924, s O. P. H. Primrose Watersheen 446, d Hittingley Heart 2638 by Waterville Lord 424
- 2131 **R. N.**—**THE KERRY STATES, LTD.**, for **Valencia Ellen**.
H. C.—2132

Dexters.

N. B.—In the Dexter Classes, the number inserted within brackets after the name of an animal indicates the number of such animal in the Irish Dexter Herd Book. A number without brackets indicates that the animal is registered in the English Dexter Herd Book.

Class 232.—Dexter Bulls, born in or before 1923.

- 2140 **I. (#15, R. N. for Champion.* & R. N. for Champion*)**—**W. LINDSAY VIVARD, M.P.**, Ratcliffe Hall, Leicester, for **Brokenhurst Philip** 726, born March 13, 1921, bred by Lady Kathleen Hare, Brokenhurst Park, Hants, s Brokenhurst Morilla 651, d Peach Blossom of Claragh 2535 by Gort Ned 5th 607
- 2139 **II. (#10)**—**MRS. C. M. L. CALVERT**, Banwell Castle, Banwell, Somerset, for **Wightwick Paul** 804, born June 6, 1922, bred by Sir Walter H. Evans, Bart., Wightwick Hall, Wolverhampton, s Oakridge Pat 674, d Oakridge Beryl 2045
- 2143 **III. (#5)**—**MRS. ERNEST JOHNSON**, Ashton Hayes, Chester, for **Grinstead Farmer** 787, born April 1, 1922, bred by Lady Ioder, Leonardlee, Hlornham, s Brockhampton Monarch 693, d Grinstead Flora 2767 by Brashfield Patrick 599
- 2137 **IV. (#4)**—**TRUSTEES OF ARLEY ESTATE**, Arley Hall, Northwich, Cheshire, for **Arley Ajax** 701, born June 15, 1922, bred by the Earl of Essex, Bodenhall Manor, S.O., Hants, s Havering Tucker 739, d Ellongley 1st 224 T 5
- 2138 **R. N.**—**MRS. F. ATHERTON BROWN**, Bourton Hill House, Moreton in Marsh, for **Bourton Hill Joek**.
H. C.—2147. **C.**—2141.

¹ Prizes, except Fourth and Fifth, given by the British Kerry Cattle Society.

* Silver Challenge Cup, value Twenty five Guineas, given by the Dexter Cattle Society, for the best animal in Class 232 to 236.

* Silver Challenge Breeders' Bowl, value Ten Guineas, given through the Dexter Cattle Society, for the best animal in Classes 232 to 236, which is already registered in the Dexter Herd Book, and is the progeny of sire and dam already registered.

Class 233.—Dexter Bulls, born in 1924.

- 2155 I. (£15).—ALFRED C. KING, Braishfield Manor, Romsey, Hants, for *Braishfield Good-enough* (Vol. 25, p. 19), born May 29; s. *La Mancha True Blue* 703, d. *La Mancha Goody* 2268 F.S.
 2153 II. (£10).—COLONEL W. O. GIBBS, Home Farm, Barrow Gurney, Somerset, for *Grinstead Wilfrid* (Vol. 25, p. 20), born May 18, bred by Lady Loder, Leonardslee, Horsham; s. *Brokenhurst Penny* 2nd 694, d. *Grinstead Wilfrid* 2953 by *Braishfield Patrick* 599.
 2151 III. (£5).—MRS. E. CRAWFORD, Thorpe Satchville Hall, Melton Mowbray, for *Thorpe Crusader* 897, born March 9; s. *Brokenhurst Florian* 724, d. *Babs of Hookstiles* 2683 F.S.
 2154 IV. (£4).—LADY KATHLEEN HARE, Brokenhurst Park, Brockenhurst, Hants, for *Brokenhurst Pip* 878, born May 14; s. *Oakridge Budget* 750, d. *Peach Blossom of Claragh* 2535 by *Gort Ned* 5th (607)
 2150 R. N.—MRS. DORA BOX, The Hawthorns, Wheaton Aston, Stafford, for *Wightwick Punch*.
 H. C.—2149. C.—2148.

Class 234.—Dexter Cows (in-milk), born in or before 1921.

- 2172 I. (£15).—COLONEL W. O. GIBBS, Home Farm, Barrow Gurney, Somerset, for *Barrow Dora* 4th 2827, born May 28, 1910, calved Feb. 11, 1925, bred by H. M. Gibbs, Barrow Court, Flax Bourton, Somerset; s. *Barrow Beau* 3rd 622, d. *Barrow Dora* 2nd 2573 by *Oakridge Marston* Jack 512.
 2167 II. (£10).—W. LINDSAY EVERARD, M.P., Ratcliffe Hall, Leicester, for *Fillingley Forest Fawn* 2756, born July 19, 1919, calved May 19, 1925, bred by Mrs. H. J. Nutt, Ratcliffe-on-Wreke, Leicester; s. *Fillingley Forester* 630, d. *Who's Who* 2540 by *Barrow Orphan* 408.
 2168 III. (£5).—W. LINDSAY EVERARD, M.P., for *Fillingley Forest Flower* 3143, born Sept. 9, 1920, calved May 19, 1925, bred by Mrs. H. J. Nutt, Ratcliffe-on-Wreke, Leicester; s. *Fillingley Forester* 630, d. *Fillingley Freesia* 2401 F.S.
 2180 IV. (£4).—THEO. A. STEPHENS, Frensham Manor, Farnham, Surrey, for *Venus of Hook-stile* 3041 F.S., born May 2, 1910, calved May 8, 1925.
 2170 V. (£3).—W. LINDSAY EVERARD, M.P., for *Pulcinella* 10th 2797, born June 27, 1910, calved April 10, 1925, bred by E. P. Peyton, The Rock, Leek-Wootton; s. *Brokenhurst Coy Boy* 539, d. *Pulcinella* 2nd 2201 by *Paganini* 532.
 2173 R. N.—LADY KATHLEEN HARE, Brokenhurst Park, Brockenhurst, for *Brokenhurst Peach*.
 H. C.—2171. C.—2178.

Class 235.—Dexter Heifers (in-milk), born in 1922 or 1923.

- 2187 I. (£15, Champion¹ & Champion²).—ARNOLD H. MILLER, Woodlands, Norwich, for *Woodland Ranunculus* (Vol. 24, p. 137), born Feb. 15, 1923, calved May 23, 1925; s. *Brokenhurst Rufus* 2nd 695, d. *Fryerning Buttercup* 2nd 2177 by *Fryerning Snowstorm* 501.
 2186 II. (£10).—ALFRED C. KING, Braishfield Manor, Romsey, Hants, for *Braishfield Petunia* 3410, born Aug. 13, 1923, calved May 22, 1925; s. *La Mancha True Blue* 703, d. *Castle-longh Patricia* 2232 by *Plantol* 564.
 2182 III. (£5).—MRS. DORA BOX, The Hawthorns, Wheaton Aston, Stafford, for *Wightwick Dora* 2nd (Vol. 23, p. 154), born Dec. 24, 1922, calved March 31, 1925; s. *Fillingley Forest Fiend* 784, d. *Wightwick Dora* 3206 by *Oakridge Pat* 672.
 2185 R. N.—MRS. ERNEST JOHNSON, Ashton Hayes, Chester, for *Bourton Hill Gipsy Love*.
 H. C.—2183. C.—2189.

Class 236.—Dexter Heifers (not in-milk), born in 1923 or 1924.³

- 2195 I. (£15).—W. LINDSAY EVERARD, M.P., Ratcliffe Hall, Leicester, for *Ratcliffe Aileen* 3359, born June 24, 1923; s. *Oakridge Budget* 750, d. *Brokenhurst Pansy* 2871 by *Brokenhurst Morilla* 651.
 2193 II. (£10).—MRS. C. M. L. CALVERT, Banwell Castle, Banwell, Somerset, for *Banwell Gladiolus* (Vol. 25, p. 12), born July 20, 1924; s. *Wightwick Paul* 864, d. *Maynards Gladiolus* 3330 by *Bagenodon Nonsuch* 687.
 2204 III. (£5).—ARNOLD H. MILLER, Woodlands, Norwich, for *Woodland Fidelity* (Vol. 25, p. 24), born May 5, 1924; s. *Grinstead Toreador* 789, d. *Woodland Friendship* 3524 by *Fillingley Falcon* 656.
 2200 IV. (£4).—LADY KATHLEEN HARE, Brokenhurst Park, Brockenhurst, Hants, for *Brokenhurst Peach Bloom* 2nd 3245, born May 9, 1923; s. *Oakridge Budget* 750, d. *Brokenhurst Peach Bloom* 2707 by *Brokenhurst Morilla* 651.
 2206 V. (£3).—THEO. A. STEPHENS, Frensham Manor, Farnham, Surrey, for *Hookstiles Valeria* (Vol. 25, p. 28), born May 18, 1924; s. *Lever Rex* 741, d. *Venus of Hookstiles* 3401 F.S.
 2190 R. N.—MRS. F. ATHERTON BROWN, Bourton Hill House, Moreton-in-Marsh, for *Bourton Hill Granny*.
 H. C.—2191. C.—2192.

¹ Silver Challenge Cup, value Twenty-five Guinea, given by the Dexter Cattle Society, for the best animal in Classes 232 to 236.

² Silver Challenge Breeders' Bowl, value Ten Guinea, given through the Dexter Cattle Society, for the best animal in Classes 232 to 236, which is already registered in the Dexter Herd Book, and is the progeny of sire and dam already registered.

³ Prizes, except Fourth and Fifth, given by the Dexter Cattle Society.

Dairy Cattle.¹

SHORTHORN OR OF SHORTHORN TYPE

The property of residents within the radius of the Cheshire Agricultural Society

Class 237.—Dairy Cows (in milk), the property of bona fide farmers.

- 2207 I. (#10)—A BROOME & SONS, Preston Brook, Warrington for Dossel
 2208 II. (#6)—JOHN LLOYD, Bears Head Farm, Smallwood, Sandbach for Dairy Lass
 2211 III. (#3)—THOMAS WARBURTON, Hall Lane Farm, Daresbury, Warrington, for Dairy-maid.
 2209 IV. (#1)—JOHN KITCHEN, Spring Bank Farm, Over, Winsford, for Beauty.
 2210 R. N.—CHARLES RYDLER, Bettington Farm, Tattenhall, for Laurestina Rosebud.

Class 238.—Dairy Cows (in calf), to calve within 3 months of the Show, the property of bona fide farmers.

- 2214 I. (#10)—JOHN LLOYD, Bears Head Farm, Smallwood, Sandbach, for Phylis.
 2216 II. (#6)—THOMAS WARBURTON, Hill Lane Farm, Daresbury, Warrington, for Beauty.
 2213 III. (#3)—JOHN FORD, for Faithful
 2218 IV. (#1)—JAMES WILD, jun, Grotto Farm, Over Peover, Knutsford, for Sparking Princess.
 2212 R. N.—A BROOME & SONS, Preston Brook, Warrington, for Edna.

Class 239.—Recorded Dairy Cows (in milk), the property of members of a Milk Recording Society.

- 2219 I. (#10)—JAMES WILD, jun, Grotto Farm, Over Peover, Knutsford, for Mungrisdale Peaval (P 2545), born July 13, 1918, bred by L. T. Taylor, Backside, Mungrisdale, Penrith

Class 240.—Recorded Dairy Cows (in calf), to calve within 3 months of the Show, the property of members of a Milk Recording Society.

- 2223 I. (#10)—JAMES WILD, jun, Grotto Farm, Over Peover, Knutsford, for Queene 2nd (G 3898)
 2220 II. (#6)—A BROOME & SONS, Preston Brook, Warrington for Eda (G 1601)
 2222 III. (#3)—H. P. MORTIMER, Kingsley Windmill by Warrington or Moonlight (G 3282).
 2221 IV. (#1)—H. P. MORTIMER, for Kingsley Lady (G 3331)

Milk Yield Classes.

Class 241.—Dairy Shorthorn Cows or Heifers.

- 1324 I. (#15)—MAURICE C. ASHFORD, Minton Grange, Marlborough and Scots Grove, Thame, for Freshute Pandora (Vol 64, p 1106), red born Oct 3 1917, calved May 26, 1923, bred by C. J. K. Muir, Minton Grange, & Knowsley Precentor 126368, & Fumbrel 21st by Kingthorpe for 112216
 1348 II. (#10)—MRS. I. M. HIZZINGH, Plas Power, Wrexham, for Rosette Prim 4th 8217, red and little white, born Feb 17, 1919, calved June 17, 1923, bred by W. Taylor Sykesdale, Soulby, & Royal Stockman 111813, & Rosette Prim by Marmion Rotin 112446
 1338 III. (#5)—CAPTAIN ARNOLD S. WILLS, Thornby Hall, Northampton for Thornby Foggathorpe 2nd (Vol 61, p 1114), white, born Sept 11, 1914, calved June 6, 1925, & Dreadnought 102049, & D. D. Phoebe 103312 bred by Lancaster Victor 99312
 1360 IV. (#4)—MAJOR S. P. YALF, for Sorbrook Foggathorpe (see Class 164)
 1339 V. (#3)—CAPTAIN ARNOLD S. WILLS, for Thornby Foggathorpe 7th (Vol 64, p 1391), white, born June 3, 1917, calved June 12, 1923, & Drusus 115142, & Thornby Foggathorpe 2nd by Dreadnought 102049
 H. C.—1917, 1926, 1929, 1936, 1955, 1967.

Class 242.—Non-Pedigree Dairy Shorthorn Cows or Heifers.

- 1422 I. (#15)—H. A. BROWN, for Isabelle (see Class 167)
 1423 II. (#10)—H. P. MORTIMER, for Lady Graceful. (see Class 167)

Class 243.—Lincolnshire Red Shorthorn Cows or Heifers.

- 1438 I. (#15)—JOHN IVINS & SON, for Burton Opal 2nd (see Class 172)
 1448 II. (#10)—JOHN IVINS & SON, for Burton Cherry 4th. (see Class 173)
 1452 III. (#5)—LIEUT. COLONEL SIR A. G. WIGGALL, K.C.M.G., Pitwood Woodhall Spa, for Langford Polly 5th (Vol 21 p 316), born in Sept. 1914, calved May 28, 1925, bred by Reading & Sons, Rectory Farm, Langford, Lechlade, & Burton Gay Boy 8842, & Langford Polly 3rd by Burton Langford 7104
 1444 IV. (#4)—BENJAMIN GEORGE BOWLER, Southern Manor, Lincoln, for Southern Flower (Vol 29, p 283), born Oct 16, 1919, calved May 9, 1925, & William of Halington 10302, & by Scampton King Hal 7119.
 H. C.—1449, 1451

¹ Prizes given by the Chester Local Committee

cxvi *Awards of Live Stock Prizes at Chester, 1925.*

Class 245.—South Devon Cows or Heifers.

- 1503 I (£15)—WALTER HUNT, Tracey's Farm, Berry Pomeroy, Totnes, for *Milkmaid 9th* 16797, born Sept 2, 1910, calved April 13, 1925, bred by W S Harris, Ash Farm, Stoke Gabriel, Totnes, s Well (Hampton 5210, d Milkmaid 4th 11644 by Dahlia Hero 2687
1504 II (£10)—WALTER HUNT, for *Milkmaid 10th*. (See Class 184)

Class 246.—Red Poll Cows or Heifers.

- 1567 I (£15)—MAJOR J A MORRISON, D S O, for *Sudbourne Comet*. (See Class 190)
1568 II (£10)—WALTER SCHIMMOUR, for *Tandring Floss 29th*. (See Class 190)
1557 III (£5)—VISCOUNT FOLKESTONE, Longford Castle Ballshury, for *Longford Ruby*, born Aug 19, 1915, calved April 25, 1925, bred by the Earl of Radnor Longford Castle, s Longford King 16762, d Longford Diamond 22172 by Demon 9789
1565 IV (£4)—MAJOR J A MORRISON, D S O, for *Bamidon Clara* 28489 born April 8, 1920, calved June 21, 1925, s Sudbourne Miner 11492, d Brightwell (Lunker 23906 by Sir David 10363
H. C.—1556, 1566.

Class 247.—Blue Albion Cows or Heifers

- 1646 I (£15)—I H SWIRE & SONS, Hallport and Mount Farms Market Drayton for *Mount Kitty*, born in 1918, calved 1st Feb 5, 1925, bred by W H Hobson, Woodhey Hall, Nantwich
1645 II (£10)—JOHN D SEALS Home Farm Snelston, Ashbourne, for *Pike Kate* 6024, calved June 20, 1925, breeder and age unknown

Class 248.—British Friesian Cows or Heifers

- 1767 I (£15, & Champion)—BIRTRAM PARKINSON, Cuckfield Hall Arthington, Leeds, for *Thurston Karels Emily* 49386 born Dec 5 1920 calved June 17, 1925, bred by G I Litton Thurston Hall, Bramfield s Kirkhill (imp) Karol 2nd 4051, d Hedges Lady Murray 15010 by Hedges Queen 13
1772 II (£10, & R N for Champion)—LEONARD SYKES Richings Park (Owlrook Bucks for *Kingswood Ceres Daisy* 59158 born Nov 21 1911 calved Feb 5 1925, bred by Horace Hale Kimwood, Fandridge, s Hedges Second Strike 6427 P I, d Brookside Hawking Daisy 20342 by Brookside Buttercup 1 Joy 1015
1753 III (£5)—G HOIT THOMAS, Northden House Hughenden, High Wycombe, for *Colton Sunray* 32650, born Oct 21, 1918, calved March 19 1925, bred by Hugh Brown Colton Mans, Dunfermline, s Tealing (imp) Vic Bertus 4541, d Colton Sunset 6868 by Colton Puritan 9
1774 IV (£4)—W and R WALLACE, Swangley's Farm Knebworth Station, Herts, for *Bladen Katy* Did 37554, born Feb 19, 1911, calved June 22, 1925, bred by I R Debenham, Brintspondle, Dork Herts, s Bladen Garnet 5895, d Woodcote Dragonfly 16642 by Woodcote Antler 855
1750 V (£3)—IRVING B HALL, Hales Hall Hales, Market Drayton for *Hales* (imp 1922) *Rika* 6505, born March 23, 1921, calved Feb 28, 1925, bred by 14 plot Brothers, Molteno, Cape Providence, s Koppeskraal Muthus 3rd 2100 s A S B, d Negerin 1067 s A S B by Ideal 479 s I R S
H. C.—1756, 1762

Class 249.—Ayrshire Cows or Heifers

- 1885 I (£15)—A W MONTGOMERY, Levenshock, Ochiltree for *Beuchan Rose* 5th 56787 born Oct 24, 1917, calved June 16, 1925, bred by the Messrs Allan Beuchan, Thornhill, s Holehouse Sunrise 11044, d Beuchan Rose 2nd 36123 by Beuchan Golden Gift 9561
1881 II (£10)—JAMES HOWIE, for *Friendlesshead Blossom* 4th. (See Class 211A)
1879 III (£5)—MAJOR C RANDOLPH DUDGON, Cargen Holm Dumfriesshire for *Cargen Holm Miss Robb* 7th 73730, born March 29, 1914, calved June 6, 1925, s Dumbie Masterpiece 10256, d Cargen Holm Miss Robb 3rd 42507 by Auchinbrain Drummie 6196
H.C.—1878

Class 250.—Guernsey Cows or Heifers

- 1935 I (£15)—WALTER DUNKER, for *Starlight Broom*. (See Class 216)
1939 II (£10)—MRS J L KIRBY, Manor House, Redbridge, Southampton, for *Dawn of Meadow View* 17566, fawn and white, born Nov 28, 1920, calved June 10, 1925, bred by 1 Browning, Norglots, St Andrews, Guernsey, s Cyrine's Lad of the Rouvets 4252 P S, R G A S, d Goldena of the Norglots 14843 P S, R G A S by Vivandier 3290 P S, R G A S
1944 III (£5)—SIR JAMES RUFNANE, BART, M P, for *Dene Lady Hester*. (See Class 216)
1916 IV (£4)—SAMUEL BEMMERS, for *Trevathan Favourite*. (See Class 216)
1937 V (£3)—MISS J L LILLS, for *Rowanberry 31st*. (See Class 216)
H. C.—1930, 1932, 1950, 1962

¹ Champion Prize of £30, with £5 to the Reserve Number, given by a Society interested in the production of milk, for the Cows obtaining the highest number of points in the Dairy Short horn, Lincolnshire Red Shorthorn, Devon, South Devon, Red Poll, Blue Albion, and British Friesian Milk Yield Competitions

Class 251.—Jersey Cows or Heifers.

- 2037 I. (*#15, Champion,¹ & Special²*)—T. B. IMBERT LEBRY, Blue Hayes, Broad Clyst, Devon for Blue Hayes Sporrán (Vol. 32, p. 280), whole colour, born Dec. 16, 1917, calved Feb. 13, 1925, s. Hotspur 12657, d. Blue Hayes Scottie by Simpkins Chief 10446
- 2031 II. (*#10, & R. N. for Champion³*)—Mrs. J. VERN, Wotton House, Dorking, for Fairlawne Hussey (Vol. 30, p. 274), broken colour, born Aug. 8, 1916, calved Feb. 4, 1925, bred by W. M. Cazalet, Fairlawne, Tonbridge, s. Sir Toby 12154 d. Hussey 11th (imp.) by MacDougal 9333
- 2050 III. (*#5*)—GROSVENOR BERRY, for Postmistress (See Class 224)
- 2046 IV. (*#4*)—R. BRUCE WARD Godinton Ashford Kent for Pirouette (Vol. 34, p. 407), whole colour, born April 3, 1920, calved May 19, 1925, s. Prometheus 13391, d. Caper by Capsicum 10892
- 2047 V. (*#3*)—R. BRUCE WARD, for Privet (Vol. 34, p. 413), whole colour, born May 3, 1920, calved March 17, 1925, s. Prometheus 13391, d. Lavergne by Catillon s. Prince 11639
H. C.—2030, 205, 2045, 203, 2071

Class 252.—Kerry Cows or Heifers

- 2111 I. (*#15, Champion,³ & Champion⁴*)—THE KERRY LSTATES, LTD., for Valencia Eileen 3rd (See Class 249)
- 2108 II. (*#10, & R. N. for Champion,³ & R. N. for Champion⁴*)—THE LINDHURST FARMING AND TRADING CO., LTD. for Flora of Carton (See Class 220)
- 112 III. (*#5*)—THE KERRY FARMING LTD. for Valencia Sunflower 2804, born March 18, 1921, calved May 10, 1925, bred by the Knight of Kerry, Valencia Island, s. Czar of Carton (500), d. Shcen 16th (256) by Kilmorna Lord 6th (098)
H. C.—2110, 2113

Class 253.—Dexter Cows or Heifers.

- 2103 I. (*#15*)—Mrs. T. AHERTON BROWN, Bourton Hill House, Moreton in Marsh, for Bourton Hill Scarlet Pimpernel 3067, born in 1920, calved March 26, 1925, breeder unknown
- 2150 II. (*#10*)—THE TRUSTEES OF THE ARTLEY ESTATE Arley Hall Northwich, for Fillongley Flotsam 3292, born May 28, 1920, calved May 2, 1925, bred by Mrs. H. J. Nutt, Ratcliffe on Wreake, Leicester, s. Oakridge Scout 614 d. Fillongley Latham 4141 b
- 2180 III. (*#5*)—THE REV. R. LINGARD SIMKIN for Oakridge Emerald 3rd. (See Class 234)
- 2179 IV. (*#4*)—Mrs. C. L. PICKARD, The Grey House, Lorton, Glaston for Quernmore Princess 3018, born June 20, 1921, calved April 19, 1925, s. Brookmist Cherry Ripc 647, d. Gort Primula 7th 627 by Gort Ned 5th 631
- 2171 V. (*#3*)—COLONEL W. O. GIBBS, Home Farm, Barrow Gurney, Somerset, for Barrow Bee 6th 3387, born June 23, 1921, calved May 23, 1925, bred by G. M. Gibbs, Graftwick Hall, Ilax Bourton, s. Oakridge batr 593, d. Barrow Bco 2nd 1826 by Barrow Captun 393
H. C.—2108

Butter Tests.

Class 254a.—Cows, exceeding 900 lb. live weight

- 2037 I. (*#15, & G. M.¹*)—T. B. IMBERT LEBRY for Blue Hayes Sporrán (See Class 251)
- 2041 II. (*#10, & S. M.²*)—Mrs. L. VERN for Fairlawne Hussey (See Class 251)
- 1772 III. (*#5*)—FRANK SYKES for Kingswood Ceres Daisy (See Class 248)
- 1348 IV. (*#4*)—CAPTAIN ARNOLD S. WILLS for Thornby Foggathorpe End. (See Class 241)
- 1646 V. (*#3*)—I. H. SWINE & SONS, for Mount Kitty (See Class 247)
H. C.—1324, 1346, 1336, 1348, 1360, 1383, 1448, 1451, 1452, 1503, 1504, 1567, 1568, 1636, 1750
- 2046 Certificate of Merit³—R. BRUCE WARD, for Pirouette
- 2034 Certificate of Merit⁴—C. J. PHILLIPS for Fly's Sweetheart,

Class 254b.—Cows, not exceeding 900 lb. live weight

- 2050 I. (*#15, & B. M.¹*)—GROSVENOR BERRY, for Postmistress. (See Class 224)
- 1939 II. (*#10*)—Mrs. J. L. KIRBY, for Dawn of Meadow View (See Class 250)

¹ Champion Prize of £20, with £5 to the Reserve Number, given by a Society interested in the production of milk for the cows obtaining the highest number of points in the Ayrshire, Guernsey and Jersey Milk Yield Competitions

² Special Prize of £10 10s. given by the Royal Jersey Agricultural Society, for the Jersey Cow obtaining the greatest number of points in Class 251

³ Champion Prize of £10, with £5 to the Reserve Number given by a Society interested in the production of milk, for the cows obtaining the highest number of points in the Kerry and Dexter Milk Yield Competitions

⁴ The "Lindhurst" Perpetual Silver Challenge Cup, value fifty guineas, given by the British Kerry Cattle Society, for the Kerry Cow in Class 252 gaining the highest number of points

⁵ Gold Medal, Silver Medal, and Bronze Medal given by the English Jersey Cattle Society, for the three Jersey Cows obtaining the greatest number of points in the Butter Tests

⁶ Certificate of Merit, given by the English Jersey Cattle Society, for Jersey Cows not being Prize Winners, obtaining the following points: Cows four years old and under, 30 points, Cows over four years old, 35 points

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- 2047 **IV. (25).**—R. BRUCE WARD, for *Privet*. (See Class 251.)
 2044 **IV. (24).**—L. E. TUBBS, The Priory, Stevenage, Herts, for *Queen Elizabeth* (Vol. 30, p. 360), whole colour, born Jan. 12, 1916, calved March 15, 1925, bred by D. A. Bevan, Roynton; s *Redstreak* 12122, d *Regina* by Fox's King 7505.
 2045 **V. (23).**—R. BRUCE WARD, for *Miranda's Lass*. (See Class 223.)
 2053 **Certificate of Merit**¹—COLONEL L. G. GIBBORNE, C.M.G., for *Cud's Raleigh Spectra*.

GOATS.²

Class 255.—Toggenburg or British Toggenburg Female Goats (in-milk), any age.

- 2226 **I. (25, & Champion)**³—MRS. JOHN C. STRAKER, Stagshaw House, Corbridge, for *Leazes Hackes* 443, born Feb. 15, 1920, kidded Jan. 6, 1925, s *Brendon Friday* 349, d *Leazes Hickberry* 904 by *Copthorne Billiken* 274.
 2224 **II. (23)**⁴—MISS ALEXANDER, Ryards Lodge, Knaresborough, for *Stockwell Corcorous* 551, born June 29, 1923, kidded May 6, 1925; s *Edel* 524, d *Korta* 518.
 2227 **III. (22).**—MRS. A. M. LAYLOR, Grey Friars House, Chester, for *Feltham Merrymaid* 5475, born April 18, 1922, kidded April 1, 1924, bred by E. A. Walmesley, Matfenley Green, Hartley Wintney, Hants, s *Hamstead Provost Marshal* 3870, d *1eltham Mirlgold* 3086 by *Leazes Lucky Halton* 2578.
 2225 **R. N.**—MISS MARJORIE HENDERSON, The Ridding, Hexham, for *Sandhill Gassy*.

Class 256.—Saanen or British Saanen Female Goats (in-milk), any age.

- 2229 **I. (25).**—MRS. ARTHUR ABBEY, Didgemere Hall, Roydon Essex, for *Didgemere Deutchia* 5937, born March 31, 1923, kidded April 27, 1925, s *Didgemere Duncan* 5556, d *Piper* of *Bashley* 4504 by *Edenstead Pluck* 007.
 2235 **II. (23)**⁴—MRS. JOHN C. STRAKER, Stagshaw House, Corbridge, for *Leazes Fibarena* 5941, born May 1, 1924, kidded Sept. 4, 1924, s *Shawbarena* 31, d *Leazes Eldella* 4425 by *Leazes Harvest* 388.

Class 257.—Anglo-Nubian Female Goats (in-milk), any age

- 2237 **I. (25, & Champion)**⁴—MRS. K. PETER, Theydon Place, Dpping for *Nash Bellona* 1273, born March 2, 1920, kidded March 24, 1925, bred by W. Horne, Nash Court, Westwell, Kent, s *1edenbreck Darius* 813, d *Nash Bella* 1112 by *Ldenbreck Midas* 740.
 2238 **II. (23).**—MRS. K. PETER, for *Theydon Belladonna* 1512, born Sept. 13, 1922, kidded May 14, 1925, s *Theydon Marcus* 1138, d *Nash Bella* 1112 by *Ldenbreck Midas* 740.
 2239 **III. (22).**—MRS. K. PETER, for *Theydon Almond* 1444, born Feb. 26, 1922, kidded Feb. 16, 1925, s *Edenbreck Klito* 947, d *Regius Agnippa* 895 by *Wizmore Norman* 562.
 2241 **R. N.**—MRS. C. L. PICKARD, The Grey House, 1orton, Glastang, for *Edenbreck Thora*.

Class 258.—British Alpine Female Goats (in-milk), any age.

- 2243 **I. (25, Champion⁴ & Champion)**⁵—MRS. ARTHUR ABBEY, Didgemere Hall, Roydon Essex, for *Didgemere Dawdler* 5075, born June 1, 1921, kidded Jan. 24, 1925, s *Prophet* of *Bashley* 3775, d *Preference* 2779 by *Leazes Lucky Halton* 2575.
 2245 **II. (23, & Champion)**⁶—MRS. ARTHUR ABBEY, for *Didgemere Dream* 5965, born Feb. 17, 1923, kidded May 19, 1925, s *Prophet* of *Bashley* 3775, d *Withdian Countess* 2855 by *Leazes Lucky Halton* 2575.
 2246 **III. (22)**⁷—MRS. ARTHUR ABBEY, for *Didgemere Dusky* 5083, born May 6, 1921, kidded March 14, 1925, s *Prophet* of *Bashley* 3775, d *Jra Starry* 4384 by *Ldenstead Cactus* 2382.
 2244 **R. N.**—MRS. ARTHUR ABBEY, for *Didgemere Deliah*.
 Q.—2248

Class 259.—Female Goats (in-milk), any age, any other variety, not eligible for Classes 255 to 258

- 2251 **I. (25)**⁸—MRS. MORCOM, The Clock House, Bromsgrove, for *Leazes Fortitude* 3710 (Anglo-Swiss), born March 4, 1919, kidded March 12, 1925, bred by Mrs. Straker, Haxham; s *Leazes Heydon* 3.65, d *Leazes Lady Fortune* 2173 by *Bromsbourn Adveral* 1947.
 2250 **II. (23)**⁹—MISS MARJORIE HENDERSON, The Ridding, Hexham, for *Riding Topas* 5816 (Anglo Nubian Swiss), born Feb. 18, 1924, kidded April 12, 1925, s *Dochfour Onyx* 4665, d *Riding Tulip* 3730 by *Mayfield Lippary* 2418.
 2252 **III. (22)**¹⁰—MRS. ROSE EDITH WROUGHTON, Furringtons, Merriott, Somerset, for *South Petherton Friemans* 5775 (Anglo Nubian Swiss), born Jan. 29, 1923, kidded May 13, 1925; s *Jan of Trianance* 5211, d *South Petherton Lirivol* 7264 by *Proud* 2853.

¹ Certificate of Merit, given by the English Jersey Cattle Society, for Jersey Cows, not being Prize Winners, obtaining the following points: Cows four years old and under, 80 points; Cows over four years old, 35 points.

² 430 towards these Prizes were given by the British Goat Society.

³ Breed Challenge Certificate, given by the British Goat Society, for the best Toggenburg Female Goat, over 2 years old.

⁴ Breed Challenge Certificate, given by the British Goat Society, for the best Anglo Nubian Female Goat, over 2 years old.

⁵ Challenge Certificate, given by the British Goat Society, for the best Female Goat, over 2 years old, that has borne a kid.

⁶ Bronze Medal, given by the British Goat Society, for the best Female Goat.

⁷ Challenge Certificate given by the British Goat Society, for the best Dual Purpose Goat.

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Class 260.—Toggenburg, British Toggenburg, Saanen or British Saanen Goatlings, over 1 but not exceeding 2 years old.

- 2253 I (25)—MRS ARTHUR ABBEY, Didgemere Hall, Roydon, Essex, for Didgemere Deborah 6407 (British Toggenburg), born Feb 28, 1924, s Didgemere Duncan 5556, d Didgemere Doughnut 5081 by Prophet of Bashley 3775
 2260 II (23)—MRS PIERCE WAINWRIGHT, Sheepwalks, Castleford, Yorks, for Fryston Stella 572 (Toggenburg), born March 7, 1924, s Ldel (imp) 524, d Kidling Cornflower 2nd 401 by Brendon 11day 349
 2256 III (22)—MISS MARJORIE HANDSON, The Ridling, Hexham, for Ridgeway Roemeria 6532 (British Toggenburg), born Feb 26, 1924, bred by Mrs Mawke, Duckholt Farm, Denbidge, s Ridgeway Rinnunculus 55-8, d Springflower 4342
 2250 R. N.—MISS K. PERRY, Theydon Place, Ippington, for Wendy of Westons.

Class 261.—Anglo-Nubian Goatlings, over 1 but not exceeding 2 years old.

- 2263 I (25)—MRS K. PERRY, Theydon Place, Ippington, for Theydon Butterfly 1615, born March 10, 1924, s Sadberge Marcus Coriolanus 100, d Theydon Babette 1436 by Theydon Angus 1136
 2262 II (23)—MRS K. PERRY, for Theydon Beryl 1611, born March 30, 1924, s Sadberge Marcus Coriolanus 100, d Nash Bellona 127 by Ldubrick Diana 843
 2264 III (22)—MRS K. PERRY, for Theydon Bunt 1614 born March 10, 1924, s Sadberge Marcus Coriolanus 100, d Theydon Babette 1436 by Theydon Angus 1436
 2261 R. N.—R. IRVING HINDLE, Alport Lodge, Bromborough, Cheshire, for Mersey Rose.

Class 262.—Goatlings, any other variety, over 1 but not exceeding 2 years old, not eligible for Classes 260 and 261.

- 2266 I (25, & Champion *)—MRS ARTHUR ABBEY, Didgemere Hall, Roydon, Essex, for Didgemere Design 6411 (British Alpine), born March 3, 1924, s Didgemere Daniel 5955, d Withden Countess 2805 by Leves Lucky Hiltun 270
 2265 II (23)—MRS ARTHUR ABBEY for Didgemere Dorothy 6414 (British Alpine), born Feb. 1, 1924, s Didgemere Daniel 5955, d Didgemere Daintus 54-8 by Prophet of Bashley 3775
 2269 III (22)—MRS RUTH IDITH WROUGHTON, Furrindons, Merriott Somerset, for Heddon Spinetta 6437 (Anglo Nubian), born May 7, 1924, bred by Mrs E. Admore, Ashley Leigh, Box, Wilts, s Schmalls 34, d Ceres

Class 263.—Female Kids, any variety, not over 1 year old.

- 2260 I (25)—MRS ARTHUR ABBEY, Didgemere Hall, Roydon, Essex, for Didgemere Donah 6623 (British Alpine) born July 12, 1924, s Didgemere Daniel 5955, d Didgemere Dough 563 by Didgemere Duncan 556
 2270 II (23)—MRS ARTHUR ABBEY, for Didgemere Desire 6826 (British Alpine), born July 16, 1924, s Didgemere Daniel 5955, d Didgemere Decima 5486 by Prophet of Bashley 3775
 2279 III (22)—MRS RUTH IDITH WROUGHTON, Furrindons, Merriott, Somerset, for South Petherton Lucy (Anglo Swiss), born April 1, 1923, bred by Mrs Ransford, Pensford, Bristol, d Drum, d Albert Coquette by Prud 285
 2271 IV (21)—MISS ALEXANDER, Byrds Lodge, Knaresborough, for Stockwell Tyollette (Anglo Nubian Swiss) born Feb 22, 1925, s Wildbury Sultan 5781, d Stockwell Lyke 17 by Stockwell Grand 4006
 2278 R. N.—MRS PIERCE WAINWRIGHT, Sheepwalks, Castleford, Yorks, for Fryston Salome. H. C.—2273, 2274, 2277. C.—2275, 2276.

Milk Yield Class.

Class 264.—Milk Yield Class, Quality, open to animals entered in Classes 255 to 259.

- 2245 I (25, & Champion *)—MRS ARTHUR ABBEY, for Didgemere Dream. (See Class 258)
 2240 II (23, & R. N. for Champion *)—MRS ARTHUR ABBEY, for Didgemere Dusky. (See Class 258)
 2244 III (22)—MRS ARTHUR ABBEY, for Didgemere Deliah 5553, born March 19, 1922, kidded Feb 24, 1925; s Prophet of Bashley 3775, d Fremdda Lidia 3555 by Copthorne Star 3120
 2220 IV (21)—MRS ARTHUR ABBEY, for Didgemere Deutcha. (See Class 256)
 2243 V (10)—MRS ARTHUR ABBEY, for Didgemere Dawdler. (See Class 258)
 2235 R. N.—MRS JOHN O STRAKER, for Leases Fibarena. H. C.—2237, 2238, 2248

* Bronze Medal, given by the British Goat Society, for the best Goatling.

* The "Dewar" Twenty Guinea Challenge Trophy, given through the British Goat Society, for the Goat entered in either the General or the Toggenburg section of the Society's Herd Book winning the highest number of points in the Milking Classes.

- 2238 Cup.¹—MISS K. PELLY, for *Theydon Belladonna*. (See Class 257)
 2237 R. N. for Cup.¹—MISS K. PELLY, for *Nash Bellona*. (See Class 257)
 2246 & 2286 Cup.¹—MRS. ARTHUR ABBEY, for *Didgemere Dusky* and *Didgemere Design*.
 2244 & 2253 R. N. for Cup.¹—MRS. ARTHUR ABBEY, for *Didgemere Delilah* and *Didgemere Deborah*.

Class 265.—Milk Yield Class, Quantity, open to animals entered in Classes 255 to 259.

- 2245 I. (£5.)—MRS. ARTHUR ABBEY, for *Didgemere Dream*. (See Class 258)
 2246 II. (£3.)—MRS. ARTHUR ABBEY, for *Didgemere Dusky*. (See Class 258)
 2244 III. (£2.)—MRS. ARTHUR ABBEY, for *Didgemere Delilah*. (See Class 264.)
 2251 IV. (£1.)—MRS. MORCOM, for *Leazes Fortitude*. (See Class 259)
 2235 V. (10s.)—MRS. JOHN C. STRAKER, for *Leazes Fibarena*. (See Class 256.)
 2226 R. N.—MRS. JOHN C. STRAKER, for *Leazes Hackee*.
 H. C.—2248.

SHEEP.

Oxford Downs.

Class 266.—Oxford Down Shearling Rams.

- 2285 I. (£10, & R. N. for Champion³), & 2284 II. (£5.)—HUGH WILLIAM STILGOE, The Grounds, Adderbury, Banbury.
 2283 III. (£3), & 2282 R. N.—GILBERT W. OVERMAN, The Manor Farm, Weasenham, King's Lynn
 H. C.—2286. C.—2287.

Class 267.—Oxford Down Ram Lambs.

- 2292 I. (£10.)—R. W. HOBBS & SONS, LTD, Kelmscott, Lechlade
 2293 II. (£5.)—EVAN JEFFRIES, Glebe Farm, Windrush, Burford, Oxon
 2288 III. (£3), & 2289 R. N.—HENRY AKERS & Co, Moat House, Black Bourton, Claufield, Oxon.
 H. C.—2290, 2291. C.—2294.

Class 268.—Three Oxford Down Ram Lambs.

- 2296 I. (£10, Champion,⁴ & Champion⁴)—HENRY AKERS & Co., Moat House, Black Bourton Claufield, Oxon.
 2299 II. (£5.)—R. W. HOBBS & SONS, LTD, Kelmscott, Lechlade.
 2297 III. (£3.)—MAJOR R. F. FULLER, Great Chalfield, Melksham, Wiltshire.
 2300 R. N.—EVAN JEFFRIES, Glebe Farm, Windrush, Burford, Oxon.
 H. C.—2298. C.—2301.

Class 269.—Oxford Down Shearling Ewes.

- 2305 I. (£10, R. N. for Champion,⁴ & Champion⁵), & 2306 R. N.—HUGH WILLIAM STILGOE, The Grounds, Adderbury, Banbury.
 2304 II. (£5.)—EVAN JEFFRIES, Glebe Farm, Windrush, Burford, Oxon.
 2303 III. (£3.)—W R GANTLETT & SON, Manor Farm, Fairford, Glos.

Class 270.—Three Oxford Down Ewe Lambs.

- 2310 I. (£10, & R. N. for Champion⁵)—R. W. HOBBS & SONS, LTD., Kelmscott, Lechlade.
 2307 II. (£5.)—HENRY AKERS & Co., Moat House, Black Bourton, Claufield, Oxon.
 2311 III. (£3.)—EVAN JEFFRIES, Glebe Farm, Windrush, Burford, Oxon.
 2308 R. N.—MAJOR R. F. FULLER, Great Chalfield, Melksham, Wiltshire.

¹ The "Pomeroy" Challenge Cup, given through the British Goat Society, for the best Anglo-Nubian entered in the Anglo-Nubian section of the Society's Herd Book winning the highest number of points in the Milking Classes.

² The "Dewar" Cup, given through the British Goat Society, for the Exhibitor showing a Female Goat in milk, and a Goatling, under certain conditions.

³ Silver Challenge Cup, value £25, given through the Oxford Down Sheep Breeders' Association, for the best Male exhibit in Classes 266 to 268.

⁴ The "Heythrop" Silver Challenge Cup, value £75, given through the Oxford Down Sheep Breeders' Association, for the best exhibit in Classes 266 to 270.

⁵ Silver Challenge Cup, value £25, given through the Oxford Down Sheep Breeders' Association, for the best Female exhibit in Classes 269 and 270.

Shropshires.

Class 271.—*Shropshire Two Shear Rams.*

- 2314 I. (210, Champion,¹ & R. N. for Champion.)—CAPTAIN F B F BIBBY, Hardwicke Grange, Shrewsbury
 2317 II. (25)—WILLIAM EVERALL, Shrawurline Castle, Shrewsbury
 2318 III. (23)—MRS W I INGE Thorpe, Farnworth for Thorpe Prince Charles.
 2320 IV. (22)—J G PITT, Peover Hall Over Peover, Knutsford, for Peover Monarch, bred by T A Butler, Crofton, Coupar Angus
 2322 R. N.—THE LAMBS OF THE LATE JOSHUA HIRST WHEATLEY, Berkswell Hall, Coventry, for Shrademont.
 H. C.—2321 C—2315

Class 272.—*Shropshire Shearling Rams.*

- 2334 I. (210, & R. N. for Champion.)—EDWARD CRAIG TANKER, Lyton-on Severn, Cross Houses, Salop
 2330 II. (25)—L and T NOCK, Harrington Hall, Shifnal, Salop
 2325 III. (23)—H A BROWN, Croft House, Grendon, Atherstone
 2331 IV. (22)—N J NUNNIBLY, Tern Hill House, Market Drayton, Salop
 2327 V. (21)—WILLIAM LIVERAIT, Shrawardine Castle, Shrewsbury
 2328 R. N.—MRS W I INGE Thorpe, Farnworth
 H. C.—2324, 2326 C—2, 23

Class 273.—*Three Shropshire Shearling Rams*²

- 2344 I. (210, & Champion.)—N J NUNNIBLY Tern Hill House, Market Drayton, Salop
 2339 II. (25)—H A BROWN, Croft House, Grendon, Atherstone
 2345 III. (23)—EDWARD CRAIG TANKER Lyton-on Severn Cross Houses, Salop
 2343 IV. (22)—L and T NOCK, Harrington Hall, Shifnal, Salop
 2337 R. N.—CAPTAIN F B F BIBBY, Hardwicke Grange, Shrewsbury
 H. C. 2340, 2342

Class 274.—*Three Shropshire Ram Lambs.*

- 2346 I. (210)—H A BROWN, Croft House, Grendon, Atherstone
 2350 II. (25)—N J NUNNIBLY, Tern Hill House, Market Drayton, Salop
 2349 III. (23)—L and T NOCK, Harrington Hall, Shifnal, Salop
 2347 R. N.—WILLIAM LIVERAIT, Shrawardine Castle, Shrewsbury
 H. C.—2352 C—2351, 2353

Class 275.—*Three Shropshire Shearling Ewes*

- 2357 I. (210, & 2359 III. (23)—MRS W I INGE, Thorpe Farnworth
 2355 II. (25)—H A BROWN, Croft House, Grendon, Atherstone
 2361 R. N.—THE LAMBS OF THE LATE JOSHUA HIRST WHALLEY, Berkswell Hall, Coventry
 H. C.—2354 C—2359

Class 276.—*Three Shropshire Ewe Lambs.*

- 2368 I. (210)—EDWARD CRAIG TANKER, Lyton-on Severn Cross Houses, Salop
 2362 II. (25)—H A BROWN, Croft House, Grendon, Atherstone
 2363 III. (23)—WILLIAM LIVERAIT, Shrawardine Castle, Shrewsbury
 2366 R. N.—N J NUNNIBLY, Tern Hill House, Market Drayton, Salop
 H. C. 2365, 2369 C—2364, 2367

Southdowns.

Class 277.—*Southdown Two Shear Rams*

- 2370 I. (210, & R. N. for Champion.)⁴—SIR JEREMIAH COLMAN, BART, Gatton Park, Surrey
 2373 II. (25)—LADY LUDLOW, Luton Hoo, Luton, Beds
 2371 III. (23), & 2372 R. N.—LADY FITZGERALD, Buckland, Tarington, Berks
 H. C.—2374

Class 278.—*Southdown Shearling Rams*

- 2379 I. (210, & Champion)⁴—LADY FITZGERALD, Buckland, Tarington, Berks
 2380 II. (25)—LADY LUDLOW, Luton Hoo, Luton, Beds
 2382 III. (23)—R MATHRELL & SON, Thorney Manor, Farnworth, Sussex.
 2378 IV. (22)—SIR JEREMIAH COLMAN, BART, Gatton Park, Surrey
 2384 R. N.—J PIERPONT MORGAN, Wall Hall, Aldenham, Watford
 H. C.—2381 C—2375, 2377

¹ Champion Silver Medal, given by the Shropshire Sheep Breeders' Association, for the best Ram in Classes 271 and 272

² The "Eaton" Silver Challenge Cup, value Fifty Guineas, given through the Shropshire Sheep Breeders' Association, for the best exhibit of Shropshire Sheep in Classes 271 to 276

³ Prizes, except Fourth, given by the Shropshire Sheep Breeders' Association

⁴ Champion Gold Medal, value £10 10s, given by the Southdown Sheep Society, for the best Ram in Classes 277 and 278

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Class 279.—Three Southdown Shearling Rams.¹

- 2388 I. (£10).—SIR JEREMIAH COLMAN, BART, Gatton Park, Surrey.
 2390 II. (£5).—LADY LUDLOW, Luton Hoo, Luton, Beds.
 2386 III. (£3).—HIS MAJESTY THE KING, Sandringham.
 2391 R. N.—R. METHRELL & SON, Thorney Manor, Emsworth, Sussex.
 H. C.—2389. C.—2387.

Class 280.—Three Southdown Ram Lambs.

- 2395 I. (£10).—THE EARL OF DERBY, K.G., Hatchfield Farm, Newmarket.
 2394 II. (£5).—SIR JEREMIAH COLMAN, BART., Gatton Park, Surrey.
 2399 III. (£3).—J. PIERPONT MORGAN, Wall Hall, Aldenham, Watford.
 2396 R. N.—LADY FITZGERALD, Buckland, Faringdon, Berks.
 H. C.—2392. C.—2398.

Class 281.—Three Southdown Shearling Ewes.

- 2404 I. (£10, & Champion.²)—J. PIERPONT MORGAN, Wall Hall, Aldenham, Watford.
 2403 II. (£5, & R. N. for Champion.³)—LADY LUDLOW, Luton Hoo, Luton, Beds.
 2402 III. (£3).—SIR JEREMIAH COLMAN, BART, Gatton Park, Surrey.
 2400 R. N.—HIS MAJESTY THE KING, Sandringham.
 H. C.—2401.

Class 282.—Three Southdown Ewe Lambs.

- 2410 I. (£10).—LADY LUDLOW, Luton Hoo, Luton, Beds.
 2408 II. (£5).—THE EARL OF DERBY, K.G., Hatchfield Farm, Newmarket.
 2412 III. (£3).—J. PIERPONT MORGAN, Wall Hall, Aldenham, Watford.
 2407 R. N.—SIR JEREMIAH COLMAN, BART, Gatton Park, Surrey.
 H. C.—2405. C.—2406, 2409, 2411.

Hampshire Downs.

Class 283.—Hampshire Down Shearling Rams.

- 2416 I. (£10, & Champion.²)—JAMES GOLDSMITH, Blendworth, Horndean, Cosham, Hants.
 2418 II. (£5).—MAJOR and MRS F. H. T. JERVOISE, Herliard Park, Basingstoke.
 2420 III. (£3).—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading.
 2414 IV. (£2).—H. W. BISHOP and J. W. MEASURES, Pendley Stock Farms, Tring.
 H. C.—2422. C.—2413, 2417.

Class 284.—Hampshire Down Ram Lambs.

- 2426 I. (£10).—JAMES GOLDSMITH, Blendworth, Horndean, Cosham, Hants.
 2432 II. (£5).—V. T. THOMPSON, Norton Manor, Sutton Scotney, Hants.
 2428 III. (£3).—MAJOR and MRS F. H. T. JERVOISE, Herliard Park, Basingstoke.
 2429 IV. (£2).—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading.
 2433 R. N.—COLONEL C. W. SOFER WHITBURN, Ampert, Andover.
 H. C.—2425, 2431. C.—2424, 2427, 2430.

Class 285.—Three Hampshire Down Ram Lambs.

- 2437 I. (£10, & R. N. for Champion.²)—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading.
 2439 II. (£5).—COLONEL C. W. SOFER WHITBURN, Ampert, Andover.
 2436 III. (£3).—MAJOR and MRS F. H. T. JERVOISE, Herliard Park, Basingstoke.
 2435 R. N.—JAMES GOLDSMITH, Blendworth, Horndean, Cosham, Hants.
 H. C.—2438. C.—2434.

Class 286.—Three Hampshire Down Shearling Ewes.

- 2440 I. (£10), & 2441 II. (£5).—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading.
 2442 III. (£3).—COLONEL C. W. SOFER WHITBURN, Ampert, Andover.

Class 287.—Three Hampshire Down Ewe Lambs.

- 2446 I. (£10).—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading.
 2443 II. (£5).—H. W. BISHOP and J. W. MEASURES, Pendley Stock Farms, Tring.
 2447 III. (£3).—V. T. THOMPSON, Norton Manor, Sutton Scotney, Hants.
 2445 R. N.—MAJOR and MRS F. H. T. JERVOISE, Herliard Park, Basingstoke.

¹ Prizes given by the Southdown Sheep Society.

² Champion Silver Medal, given by the Southdown Sheep Society, for the best Pen of Ewes or Ewe Lambs in Classes 281 and 282.

³ Champion Prize of £10, given by the Hampshire Down Sheep Breeders' Association, for the best exhibit in Classes 283 to 287.

Suffolks.

Class 288.—*Suffolk Two Shear Rams.*

- 2449 I. (£10).—R. L. BARCLAY, Higham, Bury St. Edmunds, for Babraham Higham Deans I 17522, bred by O. R. W. Adeane, C.B., Babraham, Cambridge.
2450 II. (£5).—S. R. SHERWOOD, Playford, Ipswich.

Class 289.—*Suffolk Shearling Rams.*

- 2457 I. (£10).—S. R. SHERWOOD, Playford, Ipswich.
2453 II. (£5).—T. W. GOODCHILD, The Change, Great Yeldham, Essex, for Carlton Improver 18308, bred by the Exors. of the late Sir Ernest Cassel, Carlton Grange, Newmarket.
2452 III. (£3).—LIEUT.-COLONEL C. BROOK, Kinmount, Annan, for Kinmount Energy.
2451 R. N.—R. L. BARCLAY, C.B.E., Higham, Bury St. Edmunds.
H. C.—2458. C.—2456.

Class 290.—*Suffolk Ram Lambs.*

- 2460 I. (£10, & R. N. for Champion.)—W. F. PAUL, Kirton Lodge, Kirton, Ipswich.
2465 II. (£5).—G. A. GOODCHILD, Gt. Yeldham Hall, Gt. Yeldham, Essex.
2462 III. (£3), & 2461 V. (£1).—SIR ERNEST CASSELL'S EXORS, Carlton Grange, Brinkley, Newmarket.
2470 IV. (£2).—S. R. SHERWOOD, Playford, Ipswich.
2464 R. N.—G. R. C. FOSTER, Anstey Hall, Trumpington, Cambridge.
H. C.—2460.

Class 291.—*Three Suffolk Ram Lambs.**

- 2480 I. (£10).—W. F. PAUL, Kirton Lodge, Kirton, Ipswich.
2477 II. (£5).—G. A. GOODCHILD, Gt. Yeldham Hall, Gt. Yeldham, Essex.
2474 III. (£3).—SIR ERNEST CASSELL'S EXORS, Carlton Grange, Brinkley, Newmarket.
2476 IV. (£2).—G. R. C. FOSTER, Anstey Hall, Trumpington, Cambridge.
2481 R. N.—S. R. SHERWOOD, Playford, Ipswich.

Class 292.—*Three Suffolk Shearling Ewes.*

- 2483 I. (£10).—R. L. BARCLAY, C.B.E., Higham, Bury St. Edmunds.
2488 II. (£5).—W. F. PAUL, Kirton Lodge, Kirton, Ipswich.
2484 III. (£3).—LIEUT.-COLONEL C. BROOK, Kinmount, Annan.
2485 R. N.—T. W. GOODCHILD, The Change, Great Yeldham, Essex.

Class 293.—*Three Suffolk Ewe Lambs.*

- 2497 I. (£10, & Champion.)—W. F. PAUL, Kirton Lodge, Kirton, Ipswich.
2491 II. (£5).—SIR ERNEST CASSELL'S EXORS, Carlton Grange, Brinkley, Newmarket.
2493 III. (£3).—G. R. C. FOSTER, Anstey Hall, Trumpington, Cambridge.
2494 IV. (£2).—G. A. GOODCHILD, Gt. Yeldham Hall, Gt. Yeldham, Essex.
2498 R. N.—S. R. SHERWOOD, Playford, Ipswich.

Dorset Downs.

Class 294.—*Dorset Down Rams, Shearling and upwards.*

- 2500 I. (£10, & R. N. for Champion.)—HOOPEE BROS., Newburgh Farm, Winfrith, Dorset for ram born in 1924.
2503 II. (£5).—RANDOLPH TORY, Charlsworth, Blandford, for ram born in 1924.
2502 III. (£3).—P. and C. SEWARD, Weston, Petersfield, for ram born in 1924, bred by Mrs. L. de Rothschild, Exbury, Southampton.

Class 295.—*Dorset Down Ram Lambs.⁴*

- 2506 I. (£10).—HOOPEE BROS., Newburgh Farm, Winfrith, Dorset.
2504 II. (£5), & 2505 R. N.—MRS. LIONEL DE ROTHSCHILD, Exbury, Southampton.
2507 III. (£3).—P. and C. SEWARD, Weston, Petersfield.

Class 296.—*Dorset Down Shearling Ewes.*

- 2514 I. (£10, & Champion.)—HOOPEE BROS., Newburgh Farm, Winfrith, Dorset.
2513 II. (£5), & 2512 III. (£3).—MRS. LIONEL DE ROTHSCHILD, Exbury, Southampton.

¹ Perpetual Challenge Plate and £5 in cash, given by the Suffolk Sheep Society, for the best exhibit in Classes 288 to 293.

² Prizes, except Fourth, given by the Suffolk Sheep Society.

³ Champion Prize of £5, given by the Dorset Down Sheep Breeders' Association, for the best exhibit in Classes 294 to 296.

⁴ Prizes given by the Dorset Down Sheep Breeders' Association.

Dorset Horns.

Class 297.—Dorset Horn Shearling Rams, born on or after November 1, 1923.
2517 I. (£10.)—FRANK J MERSON & SON, Farrington, North Petherton, Bridgwater

Class 298.—Dorset Horn Ram Lambs, born on or after November 1, 1924¹
2520 I. (£10.)—FRANK J MERSON & SON, Farrington, North Petherton, Bridgwater, for Merson's Chester Laddie.
2519 II. (£5.)—FRANK J MERSON & SON, for Merson's Chester Boy.
2518 III. (£3.)—FRANK J MERSON & SON.

Class 299.—Three Dorset Horn Shearling Ewes, born on or after November 1, 1923.

2522 I. (£10.)—SIR CHARLES SHELLEY, BART, Gatcombe House, Isle of Wight
2521 II. (£5.)—FRANK J. MERSON & SON, Farrington, North Petherton, Bridgwater.

Wiltshire or Western Horns.

Class 300.—Wiltshire or Western Horn Rams, Two Shear and upwards²
2525 I. (£10, & R. N. for Champion.³)—LAWIS LEWIS, Manor Farm, Crick, Rugby, for Simpson Victory 161, born in 1923, bred by C J Jones, The Mount, Simpson, Bletchley
2528 II. (£5.)—WILLIAM B SOUTHAMWOOD, Gubbinscore, Tring, for Hulcore Surprise, born in 1923, bred by G Verey, Hulcore, Towcester
2524 III. (£3.)—W. R JERMAN, Penyor-odd Camlyn, Cemaes Bay, Anglesey, for Wigan Champion 240, born in 1922, bred by W J Roberts, Frogwy Fawr, Anglesey

Class 301.—Wiltshire or Western Horn Shearling Rams
2529 I. (£10.)—JOSEPH BRODIE, Brockhall, Weedon, for Brookhall Sergeant.
2531 II. (£5.)—J. S ROADS, Norduck House, Aston Abbots, Aylesbury, for Norduck Ranger, bred by W J Coates, The Lodge, Newport Pagnell
2530 III. (£3.)—RANDALL BROS, Moulsoe Buildings Farm, Newport Pagnell, for Moulsoe Invincible.

Class 302.—Three Wiltshire or Western Horn Shearling Ewes
2534 I. (£10, & Champion.³)—J. S ROADS, Norduck House, Aston Abbots, Aylesbury
2532 II. (£5.)—JOSEPH BRODIE, Brockhall, Weedon
2533 III. (£3.)—LAWIS LEWIS, Manor Farm, Crick, Rugby.

Ryelands.

Class 303.—Ryeland Rams, Two Shear and upwards
2542 I. (£10.)—THOMAS L MARTIN, Ashe Warren House, Overton, Hants, for Herald of Ashe, born in 1922, bred by F T Gough, Lugwardine, Hereford
2544 II. (£5.)—DAVID J THOMAS, Talachddu, Brecon, for Talachddu Glory, born in 1923
2543 III. (£3.)—F W MORRIS, Brynderwen Farm, Llangasty, Talyllyn, Brecon, for Brynderwen Foreman 1332, born in 1923
2541 IV. (£2.)—THOMAS L MARTIN, for Ashe Radius, born in 1923
2536 R. N.—EDWARD DAVIES, Oaklands, Brecon, for Talachddu Guard.
H. C.—2537, 2538, 2539.

Class 304.—Ryeland Shearling Rams.
2551 I. (£10, & Champion.⁴)—THOMAS L MARTIN, Ashe Warren House, Overton, Hants, for Ashe Dandy.
2555 II. (£5, & R. N. for Champion.⁴)—DAVID J. THOMAS, Talachddu, Brecon, for Talachddu Hallmark.
2549 III. (£3.)—E. W. LANGFORD, LTD, Wye Bridge, Hereford, for Pomona Donoghue.
2548 IV. (£2.)—MRS HERBERT-HUDDLESTON, Clytha Park, Abergavenny, for Clytha Paragon.
2552 R. N.—THOMAS L MARTIN, for Ashe Star.
H. C.—2550, 2554. C.—2545, 2546, 2547.

Class 305.—Three Ryeland Ram Lambs.
2561 I. (£10.)—THOMAS L MARTIN, Ashe Warren House, Overton, Hants.
2557 II. (£5.)—HUBERT GROOM, Warham, Wells, Norfolk
2560 III. (£3.)—E W LANGFORD, LTD, Wye Bridge, Hereford.
2556 R. N.—MARK FENWICK, Abbotwood, Stow-on-the-Wold.

¹ Prizes given by the Dorset Horn Sheep Breeders' Association

² Prizes given by the Wiltshire or Western Horn Sheep Society

³ The "Brampton Ash" Silver Challenge Cup, value 100 Guineas, given through the Wiltshire or Western Horn Sheep Society, for the best exhibit in Classes 300 to 302

⁴ Silver Challenge Cup, given through the Ryeland Flock Book Society, for the best exhibit in Classes 303 to 307

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Class 306.—*Three Ryeland Shearling Ewes*

- 2569 I. (#10)—E W LANGFORD, LTD, Wye Bridge, Hereford
 2568 II. (#5)—HUBERT GROOM, Warham, Wells, Norfolk
 2570 III. (#3)—THOMAS L MARTIN, Ashe Warren House, Overton, Hants.
 2565 R. N.—MARK BLNWK, Abbotswood, Stow on the Wold
 H. C.—2564, 2568

Class 307.—*Three Ryeland Ewe Lambs*

- 2571 I. (#10)—HUBERT GROOM, Warham, Wells, Norfolk
 2574 II. (#5)—THOMAS L MARTIN, Ashe Warren House, Overton, Hants
 2573 III. (#3)—E W LANGFORD, LTD, Wye Bridge, Hereford
 2572 R. N.—F H HEALING, Chapel Farm, Walton Cardiff, Llanwakesbury

Kerry Hill (Wales).

Class 308.—*Kerry Hill (Wales) Rams, Two Shear and upwards*

- 2580 I. (#10)—J C JONES, Graig, Llanfair, Welshpool, for Goutre Lieutenant 8331, born in 1922, bred by W B Carfield, Goltre, Kerry, Mont
 2585 II. (#5)—THE DUKE OF WESTMINSTER, G C V O, D S O, Laton Hall, Chester, for Eaton Oberon 9056, born in 1923
 2583 III. (#3)—THE EARL OF POWIS, Powis Castle, Welshpool for Farlands Tantalus 9110, born in 1923, bred by J Hamir, the 1 arlands, Brampton Brian
 2582 IV. (#2)—L D MOORI, Brampton Brian, Herefordshire, for Maesmawr Recorder 8550, born in 1922, bred by I Kinsey, Maesmawr, Coersws
 2584 V. (#1)—MRS L LATE, Swinford Lodge, Rugby, for Swinford Hotspur 9605, born in 1923
 2576 R. N.—W V DAVIES, Pentreant, Church Stoke, for Ragdon Orator.
 H. C.—2575

Class 309.—*Kerry Hill (Wales) Shearling Rams*

- 2594 I. (#10)—THE MARQUESS OF LONDONDERRY, K G, P C, Plas Machynlleth, Machynlleth, Mont, for Great Weston Yeoman, bred by I Jones & Sons, Great Weston, Montgomery
 2588 II. (#5)—BLN ALDRISON, Giamllili, Kerry, Mont, for Kerry Uxter, bred by Mrs Pugh, Jamesford, Montgomery
 2601 III. (#3)—THE DUKE OF WESTMINSTER, G C V O, D S O, Laton Hall, Chester, for Eaton Prototype
 2592 IV. (#2)—I THOMAS JONES, Great Weston Farm, Montgomery, for Great Weston Youngster.
 2589 V. (#1)—DINAM ESTATES COMPANY, Llandinam Hall Farm, Llandinam, Mont, for Gwernygog Edgar
 2598 R. N.—THE EARL OF POWIS, Powis Castle, Welshpool, for Powysland Jester.
 H. C.—2599

Class 310.—*Kerry Hill (Wales) Ram Lambs*

- 2603 I. (#10)—DAVID PIERCEAL BARNETT, Walterston, Llanfair, Cowbridge
 2610 II. (#5)—CAPTAIN J M NAYLOR, Leighton Hall, Welshpool, for Leighton Imp
 2615 III. (#3)—L D MOORI, Brampton Brian, for Brampton Envoy
 2608 IV. (#2)—THOMAS JONES, Great Weston Farm, Montgomery, for Great Weston Zeal
 2617 V. (#1)—THE EARL OF POWIS, Powis Castle, Welshpool, for Powysland King.
 2609 R. N.—W H LESLIE, Bryntanat, Llanantiffraid, Mont

Class 311.—*Three Kerry Hill (Wales) Shearling Ewes*

- 2628 I. (#10)—CAPTAIN J M NAYLOR, Leighton Hall, Welshpool
 2631 II. (#5)—MRS L TATE, Swinford Lodge, Rugby
 2620 III. (#3)—THE EARL OF POWIS, Powis Castle, Welshpool
 2633 IV. (#2)—THE DUKE OF WESTMINSTER, G C V O, D S O, Eaton Hall, Chester
 2625 V. (#1)—W H LESLIE, Bryntanat, Llanantiffraid, Mont
 2630 R. N.—STEWART ROBINSON, The Ovals, Kingston, Herefordshire

Class 312.—*Three Kerry Hill (Wales) Ewe Lambs*¹

- 2639 I. (#10)—E D MOORE, Brampton Brian, Herefordshire
 2640 II. (#5)—CAPTAIN J M NAYLOR, Leighton Hall, Welshpool
 2641 III. (#3)—STEWART ROBINSON, The Ovals, Kingston, Herefordshire
 2636 R. N.—LORD HARLEIGH, Brogyntyn, Oswestry.
 H. C.—2637, 2638

Lincolns.

Class 313.—*Lincoln Two Shear Rams*

- 2645 I. (#10)—CLIFFORD NICHOLSON, Horkstow Manor, Barton on Humber, for Horkstow Manor Gollwog
 2646 II. (#6), & 2647 III. (#3)—HAWNSLEY & TINDALL, Park House, Louth, and Well Vale Alford, Lincs
 2643 R. N.—J. H DEAN & SONS, Heath House, Nocton, Lincoln

¹ Prizes given by the Kerry Hill (Wales) Flock Book Society.

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Class 314.—Lincoln Shearling Rams.

- 2658 I. (\$10. & Champion.)—CLIFFORD NICHOLSON, Horkstow Manor, Barton-on-Humber.
 2656 II. (\$5. & R. N. for Champion.) & 2655 R. N.—CHARLES E. HOWARD, Nocton Rise, Lincoln.
 2653 III. (\$3.) & 2652 IV. (\$2.)—J. H. DEAN & SONS, Heath House, Nocton, Lincoln.
 2661 V. (\$1.)—RAWNSLEY & TINDALL, Park House, Louth, and Well Vale, Alford, Lincs.

Class 315.—Three Lincoln Shearling Rams.¹

- 2673 I. (\$15.)—RAWNSLEY & TINDALL, Park House, Louth, and Well Vale, Alford, Lincs.
 2669 II. (\$10.)—CHARLES E. HOWARD, Nocton Rise, Lincoln.
 2666 III. (\$5.)—J. H. DEAN & SONS, Heath House, Nocton, Lincoln.
 2671 IV. (\$3.)—CLIFFORD NICHOLSON, Horkstow Manor, Barton-on-Humber.
 2665 R. N.—THOMAS CAMPION, East Healderton, York.

Class 316.—Three Lincoln Ram Lambs.

- 2674 I. (\$10.)—ERNEST ADDISON, Ribby Grange, Stallingboro', Lincs.
 2676 II. (\$5.) & 2677 R. N.—J. H. DEAN & SONS, Heath House, Nocton, Lincs.
 2681 III. (\$3.)—RAWNSLEY & TINDALL, Park House, Louth, and Well Vale, Alford, Lincs.
 R. C.—2679.

Class 317.—Three Lincoln Shearling Ewes.

- 2684 I. (\$10.) & 2685 R. N.—CHARLES E. HOWARD, Nocton Rise, Lincoln.
 2682 II. (\$5.)—ERNEST ADDISON, Ribby Grange, Stallingboro', Lincs.
 2688 III. (\$3.)—RAWNSLEY & TINDALL, Park House, Louth, and Well Vale, Alford, Lincs.

Class 318.—Three Lincoln Ewe Lambs.

- 2691 I. (\$10.) & 2692 R. N.—J. H. DEAN & SONS, Heath House, Nocton, Lincoln.
 2690 II. (\$5.)—ERNEST ADDISON, Ribby Grange, Stallingboro', Lincs.
 2694 III. (\$3.)—RAWNSLEY & TINDALL, Park House, Louth, and Well Vale, Alford, Lincs.

Leicesters.

Class 319.—Leicester Shearling Rams.

- 2698 I. (\$10. & Champion.), & 2697 II. (\$5.)—W. JORDAN, Eastburn, Driffield.
 2701 III. (\$3.)—R. MEGGINSON, Garton Field, Driffield.
 2702 IV. (\$2.)—C. H. SIMPSON & SONS, Castle House, Hunmanby.
 R. C.—2699. C.—2695, 2696.

Class 320.—Leicester Ram Lambs.

- 2704 I. (\$10.) & 2705 III. (\$3.)—W. JORDAN, Eastburn, Driffield.
 2706 II. (\$5.)—R. MEGGINSON, Garton Field, Driffield.
 2708 R. N.—C. H. SIMPSON & SONS, Castle House, Hunmanby.
 C.—2707, 2709.

Class 321.—Leicester Shearling Ewes.

- 2718 I. (\$10. & R. N. for Champion.)—C. H. SIMPSON & SONS, Castle House, Hunmanby.
 2714 II. (\$5.) & 2713 III. (\$3.)—W. JORDAN, Eastburn, Driffield.
 2716 IV. (\$2.)—R. MEGGINSON, Garton Field, Driffield.
 2712 R. N.—HOLTBY & STOKES, Haywood, North Dalton, Driffield.
 R. C.—2717. C.—2719.

Class 322.—Leicester Ewe Lambs.

- 2720 I. (\$10.)—W. JORDAN, Eastburn, Driffield.
 2724 II. (\$5.) & 2725 R. N.—C. H. SIMPSON & SONS, Castle House, Hunmanby.
 2722 III. (\$3.)—R. MEGGINSON, Garton Field, Driffield.
 R. C.—2721.

¹ Champion Prize of £5, given by the Lincoln Longwool Sheep Breeders' Association, for the best Ram in Classes 313 and 314

² Prizes given by the Lincoln Longwool Sheep Breeders' Association.

³ Champion Silver Medal, given by the Leicester Sheep Breeders' Association, for the best exhibit in Classes 319 to 322.

Border Leicesters.

Class 323.—*Border Leicester Rams, Two Shear and upwards.*

- 2727 I. (#10, & Champion.¹)—JOHN YOUNG, Skerrington Mains, Hurttord, N.B., for Sandyknowe Astrologer, born in 1922, bred by T. and M. Templeton, Sandyknowe, Kelso.
2726 II. (#5.)—WILLIAM DAVIDSON, East Learmouth, Cornhill-on-Tweed, for High Force, born in 1921, bred by R. and W. B. Dickinson, Longcroft, Berwick.

Class 324.—*Border Leicester Shearling Rams.*

- 2728 I. (#10.)—WILLIAM DAVIDSON, East Learmouth, Cornhill-on-Tweed.

Class 325.—*Border Leicester Ewes, Two Shear and upwards, with lambs at foot.*

- 2729 I. (#10.)—WILLIAM DAVIDSON, East Learmouth, Cornhill-on-Tweed, for ewe, born in 1924.

Class 326.—*Border Leicester Shearling Ewes.*

- 2732 I. (#10, & R. N. for Champion.¹)—JOHN YOUNG, Skerrington Mains, Hurttord, for ewe, bred by T. and M. Templeton, Sandyknowe, Kelso.
2730 II. (#5.)—WILLIAM DAVIDSON, East Learmouth, Cornhill-on-Tweed.
2731 III. (#3.)—JOHN MOORE, St. Demol's Ash, Hawarden, Chester.

Wensleydales.

Class 327.—*Wensleydale Rams, Two Shear and upwards.*

- 2736 I. (#10.)—JOHN DARGUE, Burnside Hall, Kendal, for Carper by Blue Prince 3088, born in 1922, bred by J. Hargrave, Wath, Ripon.
2737 II. (#5.)—JOHN PERCIVAL, Easthouse, Carperby, Yorks, for Royal Leicester, born in 1923, bred by F. Foster, Gallow Hill, Ripon.
2734 III. (#3.)—THE MARQUIS OF BUTE, K.T., Dumfries House, Old Cumnock, for Roseburn Holme, born in 1923, bred by J. W. Greensit, Holme-on-Swale, Thirsk.
2738 R. N.—J. B. SMALLLEY, Birkby Hall, Cark-in-Cartmel, for Borwick Dreadnought.
H. C.—2733, 2735.

Class 328.—*Wensleydale Shearling Rams.*

- 2745 I. (#10.)—JOHN A. WILLIS, Manor House, Carperby, Yorks.
2743 II. (#5.)—JOHN WILLIAM GREENSIT, Holme-on-Swale, Thirsk, for ram, bred by Edward Alfred Greensit, Holme Lodge, Thirsk.
2739 III. (#3.)—JOHN ALLISON, Howgrave Hall, Kirklington, Bedale.
2744 R. N.—JOHN PERCIVAL, Easthouse, Carperby, Yorks.
H. C.—2746. G.—2740, 2741.

Class 329.—*Three Wensleydale Shearling Rams.*

- 2750 I. (#10.)—JOHN A. WILLIS, Manor House, Carperby, Yorks.
2748 II. (#5.)—JOHN PERCIVAL, Easthouse, Carperby, Yorks, for rams, bred by J. O. Brooklebank, Grange-over-Sands.
2747 III. (#3.)—JOHN WILLIAM GREENSIT, Holme-on-Swale, Thirsk.
2749 R. N.—J. B. SMALLLEY, Birkby Hall, Cark-in-Cartmel, for Birkby Monarch, Birkby Victor, and Birkby Challenger.

Class 330.—*Wensleydale Shearling Ewes.*

- 2751 I. (#10.)—JOHN ALLISON, Howgrave Hall, Kirklington, Bedale.
2752 II. (#5.)—JOHN WILLIAM GREENSIT, Holme-on-Swale, Thirsk.
2753 III. (#3.)—JOHN PERCIVAL, Easthouse, Carperby, Yorks, for ewe, bred by J. O. Brooklebank, Grange-over-Sands.
2755 R. N.—JOHN A. WILLIS, Manor House, Carperby, Yorks.
H. C.—2754, 2756.

Class 331.—*Wensleydale Yearling Ewes, shown in Wool.²*

- 2758 I. (#10.)—JOHN WILLIAM GREENSIT, Holme-on-Swale, Thirsk.
2760 II. (#5.)—JOHN PERCIVAL, Easthouse, Carperby, Yorks, for ewe, bred by J. Allison, Howgrave Hall, Bedale.
2761 III. (#3.)—J. B. SMALLLEY, Birkby Hall, Cark-in-Cartmel, Lancs, for ewe, bred by G. Dickinson, The Mount, Cark-in-Cartmel.
2757 R. N.—JOHN ALLISON, Howgrave Hall, Kirklington, Bedale.
H. C.—2759.

¹ Perpetual Silver Challenge Cup, value Sixty Guineas, given by the Society of Border Leicester Sheep Breeders, for the best Ram or Ewe in Classes 323 to 326.

² Prizes given by the Wensleydale Longwool Sheep Breeders' Association.

Kent or Romney Marsh.

Class 332.—*Kent or Romney Marsh Two-Shear Rams.*

- 2765 I. (£10, & Champion¹), & 2764 III. (£3).—JOHN EGLERTON QUESLED, The Firs, Cheriton, Kent
 2762 II. (£5, & R. N. for Champion¹).—J. RAYNER BRITTS, Greenhill, Otham, Maidstone.
 2763 R. N.—THE EARL OF GUILFORD, Waldershare Park, Dover

Class 333.—*Kent or Romney Marsh Shearling Rams.*

- 2774 I. (£10), 2773 II. (£5), & 2772 IV. (£2).—JOHN EGLERTON QUESLED, The Firs, Cheriton, Kent
 2775 III. (£3).—ASHLEY SERRINS, Davington Hall, Faversham
 2770 V. (£1).—THE EARL OF GUILFORD, Waldershare Park, Dover
 2779 R. N.—WALTER H. WOOD, Chicks Court, Sittingbourne.
 C.—2768, 2776

Class 334.—*Three Kent or Romney Marsh Shearling Rams.²*

- 2787 I. (£20), & 2786 II. (£15).—JOHN EGLERTON QUESLED, The Firs, Cheriton, Kent
 2789 III. (£10).—ASHLEY SERRINS, Davington Hall, Faversham
 2792 IV. (£5), & 2783 R. N.—THE EARL OF GUILFORD, Waldershare Park, Dover
 H. C.—2785 C.—2780, 2789

Class 335.—*Three Kent or Romney Marsh Ram Lambs.*

- 2793 I. (£10), & 2795 II. (£5).—JOHN EGLERTON QUESLED, The Firs, Cheriton, Kent
 2791 III. (£3), & 2792 R. N.—THE EARL OF GUILFORD, Waldershare Park, Dover
 H. C.—2790 C.—2794

Class 336.—*Three Kent or Romney Marsh Shearling Ewes.*

- 2801 I. (£10, & Champion³), 2799 III. (£3), & 2800 R. N.—JOHN EGLERTON QUESLED, The Firs, Cheriton, Kent
 2798 II. (£5).—THE EARL OF GUILFORD, Waldershare Park, Dover
 H. C.—2797 C.—2796.

Class 337.—*Three Kent or Romney Marsh Ewe Lambs.*

- 2806 I. (£10, & R. N. for Champion³), 2805 II. (£5), & 2807 III. (£3).—JOHN EGLERTON QUESLED, The Firs, Cheriton, Kent
 2803 R. N.—THE EARL OF GUILFORD, Waldershare Park, Dover
 H. C.—2802, 2804

Cotswolds.

Class 338.—*Cotswold Shearling Rams⁴*

- 2810 I. (£10), 2809 II. (£5), & 2809 III. (£3).—WILLIAM GARNER, Abington, Fairford, Glos.

Class 339.—*Cotswold Ram Lambs.*

- 2811 I. (£10), 2813 II. (£5), & 2812 III. (£3).—WILLIAM GARNER, Abington, Fairford

Class 340.—*Cotswold Ewe Lambs.*

- 2815 I. (£10), 2814 II. (£5), & 2816 III. (£3).—WILLIAM GARNER, Abington, Fairford

Devon Long-Wools.

Class 341.—*Devon Long-Wool Shearling Rams.*

- 2817 I. (£10), & 2818 II. (£5).—THOMAS JOHN PEARCEY, Peadhill, Tiverton
 2820 III. (£3), & 2819 R. N.—FREDERICK WHITE, Torweston, Williton, Somerset

Class 342.—*Devon Long-Wool Shearling Ewes.*

- 2823 I. (£10), & 2822 III. (£3).—FREDERICK WHITE, Torweston, Williton, Somerset
 2821 II. (£5).—THOMAS JOHN PEARCEY, Peadhill, Tiverton.

¹ Champion Prize of £10 10s, given by the Kent or Romney Marsh Sheep Breeders' Association, for the best Ram in Classes 332 and 333

² Prizes given by the Kent or Romney Marsh Sheep Breeders' Association

³ Champion Prize of £10 10s, given by the Kent or Romney Marsh Sheep Breeders' Association, for the best Pen of Ewes or Ewe Lambs in Classes 336 and 337.

⁴ Prizes given by the Cotswold Sheep Society.

South Devons.

Class 343.—*South Devon Rams, Two Shear and upwards.*¹

- 2825 I. (#10).—J R HALLITT, Sherford Brixton, Plymouth, for Croft No. 5 of 1923 18741, born in 1921, bred by I Mayo, Croft, Kingsbridge, Devon
 2828 II. (#5).—HERBERT WHITLEY, Primley, Paignton, for Twelvewoods No. 8 of 1922 17819, born in 1922, bred by H Body, Twelvewoods, Liskeard, Cornwall
 2826 III. (#3).—J R HALLITT, for Halletts No. 10 of 1923 18820, born in 1923

Class 344.—*South Devon Shearling Rams.*

- 2834 I. (#10).—HERBERT WHITLEY, Primley, Paignton
 2830 II. (#5).—J R HALLITT, Sherford, Brixton, Plymouth, for Halletts No. 3 19719
 2829 III. (#3).—J R HALLITT, for Halletts No. 2 19718
 2832 R. N.—I W SIMONS, 1st Sherford, Brixton, Plymouth
 H. C.—2833

Class 345.—*South Devon Ram Lambs*¹

- 2839 I. (#10).—HERBERT WHITLEY, Primley, Paignton
 2838 II. (#5).—I W SIMONS, 1st Sherford, Brixton, Plymouth
 2836 III. (#3).—J R HALLITT, Sherford, Brixton, Plymouth
 2835 R. N.—WILLIAM CHARLES BICE, Nanswhychen St Columb, Cornwall

Class 346.—*South Devon Shearling Ewes.*

- 2843 I. (#10), & 2844 II. (#5).—HERBERT WHITLEY, Primley Paignton
 2840 III. (#3).—WILLIAM CHARLES BICE, Nanswhychen, St Columb, Cornwall

Lonks.

Class 347.—*Lonk Rams, Shearling and upwards.*

- 2845 I. (#10).—THOMAS BRAYSHAW, Dean Farm Portsmouth Todmorden, for Hill Top Swell, Hill born in 1921, bred by Miss A Redman, Hill Top Farm, Pocket Well, Hebden Bridge
 2848 II. (#5).—ATFIELD TAYLOR, Prince Bank Farm Lumb in Rossendale, for Prince Bank Buller, born in 1923, bred by Thomas Brayshaw, Dean Farm, Port mouth, Todmorden
 2846 III. (#3).—HARRY O MITCHELL, Blackmoor Farm Oxenhope, Keighley, for Blackmoor Jim R 12, born in 1922, bred by G H Hall, Mount Pleasant, Oxenhope, Keighley

Class 348.—*Lonk Shearling Ewes*

- 2849 I. (#10).—THOMAS BRAYSHAW, Dean Farm, Portsmouth, Todmorden
 2851 II. (#5), & 2850 R. N. HARRY O MITCHELL, Blackmoor Farm Oxenhope, Keighley
 2856 III. (#3).—ATFIELD TAYLOR, Prince Bank Farm, Lumb in Rossendale, for Prince Bank Peggy.
 H. C.—2852

Swaledales.

Class 349.—*Swaledale Rams, born in or before 1923*

- 2857 I. (#10).—JOSEPH WILLIAM DENT, Fair View, Middleton in Teesdale, Darlington, for Loop Forward A 417, born in 1923, bred by A A Dent, Pasture End, Bowes
 2858 II. (#5).—JOHN LAWRENCE PEACOCK, Punchard House, Arkengarthdale Richmond, Yorks, for ram, born in 1923, bred by J Glasby, Hedgesdale, Haber, Westmorland
 2859 III. (#3).—JOHN LAWRENCE PEACOCK, for Billy B 286, born in 1922, bred by William Alderson, Thringill, Kirkby Stephen

Class 350.—*Swaledale Rams, born in 1924*²

- 2860 I. (#10).—JOSEPH WILLIAM DENT, Fair View, Middleton in Teesdale Darlington
 2862 II. (#5).—JOHN LAWRENCE PEACOCK, Punchard House, Arkengarthdale, Richmond, Yorks
 2861 III. (#3).—JOSEPH WILLIAM DENT, for ram, bred by C Hutchinson, Sleightholm Bowes.

Class 351.—*Two Swaledale Ewes, born in or before 1923.*

- 2866 I. (#10).—JOHN WARMOUTH, Nettle Pot, Lunedale, Middleton in Teesdale, Darlington, for ewes, born in 1922
 2864 II. (#5), & 2865 III. (#3).—JOHN LAWRENCE PEACOCK, Punchard House, Arkengarthdale, Richmond, Yorks, for ewes, born in 1922-23

Class 352.—*Two Swaledale Ewes, born in 1924.*²

- 2869 I. (#10), 2867 II. (#5), & 2868 III. (#3).—JOHN LAWRENCE PEACOCK, Punchard House, Arkengarthdale, Richmond, Yorks

¹ Prizes given by the South Devon Flock Book Association

² Prizes given by the Swaledale Sheep Breeders' Association

Herdwicks.

Class 353.—*Herdwick Rams, Two Shear and upwards.*¹

- 2874 I. (£10).—RICHARD N WILSON, Middle Row, Wasdale Head, Gosforth, Cumberland, for *Wasdale Conqueror*, born in 1920.
 2872 II. (£5).—S D STANLEY-DODGSON, Armaside, Cockermouth, for *Chapel House* 2963, born in 1920, bred by Thomas Teesdale, Chapel House, Ireby, Cumberland.
 2870 III. (£3).—LORD LECONSFIELD, Cockermouth Castle, Cumberland, for *Dash Newcastle* 3966, born in 1921.
 2871 R. N.—SIR JOHN H. RAMSDEN, BART, Muncaster Castle, Ravenglass, Cumberland, for *Park*.

Class 354.—*Herdwick Shearling Rams.*

- 2879 I. (£10).—S D STANLEY DODGSON, Armaside, Cockermouth, for *Double Chance*.
 2876 II. (£5).—LORD LECONSFIELD, Cockermouth Castle, Cumberland, for *Dash Defiance*.
 2878 III. (£3).—SIR JOHN F RAMSDEN, BART, Muncaster Castle, Ravenglass, for *Raven Crag*.
 2877 R. N.—SIR JOHN F. RAMSDEN, BART, for *Chapel Hill*.

Class 355.—*Herdwick Shearling Ewes.*

- 2885 I. (£10).—S D STANLEY DODGS. Armaside, Cockermouth.
 2883 II. (£5).—SIR JOHN F RAMSDEN, BART, Muncaster Castle, Ravenglass.
 2880 III. (£3), & 2881 R. N.—WILLIAM JOHN KELLETT, Plas Newydd Farm, Ruthin.

Cheviots.

Class 356.—*Cheviot Rams, Two Shear and upwards.*²

- 2887 I. (£10).—JOHN ROBSON, Newton, Tarsset, North Tyne, for ram, born in 1923, bred by John Robson, Junr, Lynegar, Watten.
 2886 II. (£5).—J I and J J DODD, Riccarton, Newcastleton, born in 1923.
 2890 III. (£3).—JOHN ROBSON, JUNR, Lynegar, Watten, Caithness, for *Milkknove No Licence* 4037, born in 1923, bred by John Robson, Milkknove, Duns.
 2889 R. N.—JOHN ROBSON, JUNR, for *Milkknove* £350.

Class 357.—*Cheviot Shearling Rams.*

- 2893 I. (£10), & 2892 III. (£3).—JOHN ROBSON, Newton, Tarsset, North Tyne.
 2895 II. (£5).—JOHN ROBSON, JUNR, Lynegar, Watten, Caithness, for *Lynegar Style*.
 2891 R. N.—J T. and J. J. DODD, Riccarton, Newcastleton.

Class 358.—*Cheviot Shearling Ewes.*

- 2897 I. (£10), & 2898 II. (£5).—JOHN ROBSON, Newton, Tarsset, North Tyne.
 2900 III. (£3), & 2899 R. N.—JOHN ROBSON, JUNR, Lynegar, Watten, Caithness.

Black-Faced Mountain.

Class 359.—*Black-faced Mountain Rams, Shearling and upwards.*

- 2908 I. (£10).—OCTAVIUS MONKHOUSE, Cowshill, Wearhead, Co. Durham, for *Sunbeam*, born in 1921.
 2901 II. (£5).—CAPTAIN T S CHRISTIE, Wardrew, Gilsland, via Carlisle, for *Dandy Dinmont* 551, born in 1922, bred by J. Robson, Newton, Tarsset.
 2906 III. (£3).—JAMES DEUCHAR, Middleton, Wooler, for ram, born in 1923, bred by Charles Cadzow, Weston, Lanarkshire.
 2911 IV. (£3).—JOHN ROBSON, Newton, Tarsset, North Tyne.
 H. C.—2907.

Class 360.—*Black-faced Mountain Shearling Ewes.*

- 2915 I. (£10).—JOHN ROBSON, Newton, Tarsset, North Tyne.
 2913 II. (£5), & 2912 III. (£3).—OCTAVIUS MONKHOUSE, Cowshill, Wearhead, Co. Durham.

Welsh Mountain.

Class 361.—*Welsh Mountain Rams, Two Shear and upwards.*³

- 2920 I. (£10).—MAJOR ERIC J. W PLATT, Madryn Farm, Aber, North Wales, for *Plasnewydd* Jonah E.G. 3 1886, born in 1923, bred by Lt.-Col. E. W. Griffith, Plas Newydd, Trefnant.
 2923 II. (£5).—UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber, Bangor, for *Nantyrharn* O. 2 1242, born in 1922, bred by the late Owen Price, Nantyrharn, Cray, Brecon.
 2916 III. (£3).—CAPTAIN W. BEST, Vivod, Llangollen, for *Vivod P. 4* 1295, born in 1923.

¹ Prizes given by the Herdwick Sheep Breeders' Association.

² Prizes given by the Cheviot Sheep Society.

³ Prizes, except Fourth, given by the Welsh Mountain Flock Book Society.

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- 2918 IV. (22).—THOMAS ELLIS, Penyfed, Tynant, Corwen, for Penyfed P. 1 1344, born in 1923, bred by Robert Roberts, Arlen Vawr, Llangynnog.
 2922 R. N.—ROBERT IVOR ROBERTS, Dyserth Hall, Flint, for Dyserth Spotyn Du.

Class 362.—Welsh Mountain Shearling Rams.

- 2926 I. (210).—MAJOR J. J. P. EVANS, Lovesgrove Farm, Llanbadarn, Aberystwyth, for Flynlyman Speculation.
 2934 II. (25).—UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber, Bangor, for Snowdon S. 15.
 2935 III. (23).—UNIVERSITY COLLEGE OF NORTH WALES, for Snowdon S. 23.
 2931 IV. (22).—MAJOR ERIC J. W. PLATT, Madryn Farm, Aber, North Wales, for Madryn S. 7.
 2928 V. (21).—LT.-COL. E. W. GRIFFITH, Plasnewydd, Denbigh, for Plasnewydd Dick 1653.
 2933 R. N.—ROBERT IVOR ROBERTS, Dyserth Hall, Flint, for Dyserth Brenin S. 7.
 H. C.—2932.

Class 363.—Welsh Mountain Ram Lambs.

- 2947 I. (210).—ROBERT IVOR ROBERTS, Dyserth Hall, Flint.
 2946 II. (25).—MAJOR ERIC J. W. PLATT, Madryn Farm, Aber, North Wales.
 2944 III. (23).—RICHARD LLOYD, Giddauroad Farm, Tremelochion, St. Asaph.
 2948 IV. (22), & 2949 V. (21).—UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber, Bangor.
 2940 R. N.—MAJOR J. J. P. EVANS, Lovesgrove Farm, Llanbadarn, Aberystwyth.
 H. C.—2937.

Class 364.—Welsh Mountain Ewes, Two Shear and upwards, with lambs at foot.

- 2950 I. (210).—MAJOR W. MARSHALL DUGDALE, D.S.O., Llwyn, Llantyllin, Mont., for Royal Record, born in 1920.
 2954 II. (25).—LT.-COL. E. W. GRIFFITH, D.S.O., Plasnewydd, Denbigh, for Plasnewydd P. 45.
 2955 III. (23).—MAJOR ERIC J. W. PLATT, Madryn Farm, Aber, North Wales, for Madryn N. 23, born in 1922.
 2957 IV. (22).—UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber, Bangor, for Snowdon P. 61, born in 1923.
 2953 R. N.—MAJOR J. J. P. EVANS, Lovesgrove Farm, Llanbadarn, Aberystwyth, for Dyserth.

Class 365.—Three Welsh Mountain Shearling Ewes.

- 2964 I. (210).—MAJOR ERIC J. W. PLATT, Madryn Farm, Aber, North Wales, for ewes, bred by G. S. Gratton, Brynewnln, Rhuddlan.
 2961 II. (25).—MAJOR J. J. P. EVANS, Lovesgrove Farm, Llanbadarn, Aberystwyth, for ewes, bred by D. W. Morris, Penyvern, Talybont.
 2969 III. (23), & 2968 IV. (22).—UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber, Bangor.
 2965 R. N.—MAJOR ERIC J. W. PLATT.
 H. C.—2967.

Class 366.—Three Welsh Mountain Ewe Lambs.

- 2972 I. (210).—MAJOR J. J. P. EVANS, Lovesgrove Farm, Llanbadarn, Aberystwyth
 2973 II. (25).—LT.-COL. E. W. GRIFFITH, D.S.O., Plasnewydd, Denbigh.
 2970 III. (23).—MAJOR W. MARSHALL DUGDALE, D.S.O., Llwyn, Llantyllin, Mont.
 2976 R. N.—UNIVERSITY COLLEGE OF NORTH WALES, College Farm, Aber, Bangor.
 H. C.—2975.

Black Welsh Mountain.

Class 367.—Black Welsh Mountain Shearling Rams.

- 2979 I. (210).—ALFRED E. W. DARBY, Adcote, Shrewsbury.
 2981 II. (25), & 2980 III. (23).—MRS. F. H. T. JERVOISE, Herriard Park, Basingstoke.
 2983 R. N.—MAJOR-GEN. LORD TROWEN, C.B., C.M.G., Llanover, Abergavenny, for Llanover Tim.

Class 368.—Black Welsh Mountain Shearling Ewes.¹

- 2989 I. (210).—MRS. F. H. T. JERVOISE, Herriard Park, Basingstoke.
 2985 II. (25), & 2986 R. N.—ALFRED E. W. DARBY, Adcote, Shrewsbury.
 2990 III. (23).—MAJOR-GEN. LORD TROWEN, C.B., C.M.G., Llanover, Abergavenny.

PIGS.

Large Whites.

Class 369.—Large White Boars, born in or before 1923.

- 3006 I. (210).—EDMUND WHERRY, Bourne, Lincs, for Bourne King David 36437 (T. N. 4402), born July 1, 1921; s. Bourne King John 26091, d. Bourne Queen 26th 65034 by Bourne Bar-None 20847.

¹ Prizes given by the Black Welsh Mountain Sheep Breeders' Association.

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- 2999 II (#5).—GEORGE J HARRIS, Armadale, Hereford, for *Bourne Jay* 3rd 40497 (T N 5235), born June 4, 1923, bred by Edmund Wherry, Bourne, s Bourne Jay 36435, d Bourne Beauty 7th 64886 by Bourne King John 26091
- 2998 III (#3).—LIVEST HARDING, Packwood Grange, Dorridge, Warwickshire, for *Bourne King David* 25th 40541 (I N 5286), born July 2, 1923 bred by Edmund Wherry, Bourne, s Bourne King David 36437 d Bourne Bonetta 6th 76950 by Baron of Bourne 28693
- 2997 IV (#2).—SIR GILBERT GRIFINALL, BART, C V O, Walton Hall Warrington, for *Barfield Banner* 40099 (T N 43) born Jan 14 1923 bred by William Wright and Sons (York), Ltd, Goodramgate York s Lockwith Banner 34241, d Lockwith Marie 3rd 81484 by Luik of Doggarthland 27433
- 3003 V (#1).—GEORGE PAYNE, Wentworth, Elmeathorpe, Leicestershire, for *Bourne King David* 12th 40515 (T N 5222), born June 1, 1923, bred by Edmund Wherry, Bourne, s Bourne King David 36437, d Bourne Bonetta 9th 88828 by Baron of Bourne 28693
- 2993 R N.—CHIVERS AND SONS, Ltd, Histon, Cambridge, for *Histon Wonder*.
H.C.—3002

Class 370.—*Large White Boars, born in 1924, before July 1*

- 3016 I (#10, Champion, & Champion).—EDMUND WHERRY Bourne Lines for *Bourne King David* 53rd 47551 (T N 5500), born Jan 5, s Bourne King David 36437, d Worsley Lady 32nd 62208 by Jay of Worsley 20th 16147
- 3014 II (#5, & R N for Champion).—GEORGE PAYNE, Wentworth, Elmeathorpe, Leicestershire, for *Wentworth Lion* 18th 4985 (T N 62), born Feb 23, s Wentworth Lion 42851, d Bourne Bonetta 33rd 103310 by Bourne Champion Boy 33091
- 3012 III (#3).—SIR GILBERT GRIFINALL, BART, C V O, Walton Hall, Warrington, for *Bourne King David* 52nd 47543 (I N 491), born Jan 5, bred by Edmund Wherry, Bourne, Lines, s Bourne King David 36437, d Worsley Lady 32nd 62208 by Jay of Worsley 14th 16149
- 3015 R N.—LADY SLELEY, Sherwood Lodge, Arnold, Notts, for *Sherwood Caligula*
H.C.—3013

Class 371.—*Large White Boars, born in 1924, on or after July 1*

- 3026 I (#10).—EDMUND WHERRY Bourne Lines for *Bourne Bradbury* 4th 47451 (T N 5724) born July 6, s Bourne Bradbury 40429, d Bourne Queen 39th 88990 by Bourne Bar None 20847
- 3021 II (#5).—R P HAYNES, Delves Green Farm Wednesbury, for *Moreton Jay* (T N 257), born Aug 6 bred by R G Peel, Moreton Hall, Congleton, s Taunton Jay 22nd, d Moreton Molly by Cildmore Banner 4th 36569
- 3022 III (#3).—J PIERPONT MORGAN, Wall Hall Aldenham, Watford for *Aldenham Bellringer* 23rd (T N 788), born July 6, s Aldenham Berthas Boy 2nd 39923, d Aldenham Bell 24th 102320 by Spalding Banner 7th 40091
- 3025 IV (#2).—LADY SPILLY, Sherwood Lodge, Arnold, Notts, for *Bourne Bradbury* 6th 47455 (T N 720), born July 6, bred by Edmund Wherry, Bourne Lines, s Bourne Bradbury 40429, d Bourne Queen 39th 88990 by Bourne King John 26091
- 3017 R N.—ARCHER BALLWOOD, Mount Pleasant, Kirton Lindsey, Lincs, for *Bourne Bradbury* 5th.

Class 372.—*Large White Boars, born in 1925*

- 3059 I (#10).—EDMUND WHERRY, Bourne, Lincs, for *Bourne Baldwin* (T N 5891), born Jan 5, s Bourne King David 30th 40543, d Bourne Bonetta 25th 103296 by Bourne Bar None 125th 28835
- 3034 II (#5).—DANIEL R DAYBELL, Bottesford, Nottingham, for *boar* (T N 688), born Jan 4, s Worsley Jay 87th 27619, d Empress of Clifton 52482 by Worsley Turk 83rd 21009
- 3061 III (#3).—W WHITE & SONS, Pool Farm, Taunton, for *Taunton Jay* 38th (T N 66), born Jan 1, s Cildmore Jay 36575, d Taunton Amy 11th 90086 by Taunton Araby 3rd 27325
- 3060 IV (#2).—EDMUND WHERRY for *Bourne Birkenhead* (T N 5893) born Jan 5 s Bourne King David 30th 40543, d Bourne Bonetta 25th 103296 by Bourne Bar None 125th 28835
- 3040 V (#1).—SIR GILBERT GRIFINALL, BART, C V O, Walton Hall, Warrington, for *Bogrough Turk* 2nd (I N 39), born Jan 3, bred by 1 B Blackshaw, Hurst Farm, Appleton, Chester, s Worsley Turk 167th 27705, d Bogrough Primrose by 1 Earl of Walton 36987
- 3032 R N.—DANIEL R DAYBELL
H.C.—3036, 3052

Class 373.—*Large White Breeding Sows, born in or before 1923*

- 3073 I (#10, R N for Champion, & Champion).—J PIERPONT MORGAN, Wall Hall, Aldenham, Watford, for *Cantab Maid Matilda* 89286 (I N 277), born Jan 5, 1921, farrowed March 24, bred by Cambridge University School of Agriculture, Gravel Hill, Cambridge, s Bourne Cantab 26069, d Cantab May Maid 52892 by Histon Cantab 24015

¹ Champion Gold Medal, value £5 5s, given by the National Pig Breeders' Association, for the best Large White Boar in Classes 369 to 372

² Silver Challenge Cup, value Thirty Guineas, given by the National Pig Breeders' Association, for the best Large White Pig in Classes 369 to 375

³ Prizes except 1 fourth, given by the National Pig Breeders' Association

⁴ Champion Gold Medal, value £5 5s, given by the National Pig Breeders' Association, for the best Large White Sow in Classes 373 to 375

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- 3076 II (#5)—EDMUND WHERRY, Bourne, Lincs, for Bourne Lady Superior 88958 (T N 4484), born July 10, 1921, farrowed Feb 24, s Bourne Bar None 125th 28835, d Worsley Lady 32nd 62208 by Jay of Worsley 14th 16147
- 3070 III (#3)—SIR GILBERT GREENALL, BART, CVO, Walton Hall Warrington, for Ford Belle 9th 105124 (I N 374), born Jan 16, 1923 farrowed Jan 15 bred by T G Williams, The Ship Walton Warrington, s Ford Hercules 33483, d Lord Belle 7th 78614 by Hercules of Walton 9th 23995
- 3063 IV (#2)—CHIVERS & SONS LTD, Histon, Cambridge, for Histon Belle 63rd 105958 (I N 1791) born July 8 1921 farrowed Feb 15, s Histon Snowman 24047, d Histon Belle 53908 by Jay of Wyboston 1f149
- 3064 V (#1)—A COLIGATI, The Pole, Antrobus, Northwich, for Bryngwyn Merry 65448 (I N 10) born Aug 21 1920 farrowed April 15 bred by Lt Col Sir Reginald Rankin, Bart Bryngwyn Hereford s Emperor Worsley 11th 26409, d Grantham Gay Lady 2nd 59502 by Gunner of Grantham 21119
- 3069 R N—THOMAS EASTWOOD, JUNR, Heath Hey, Hooton, Cheshire, for Hallstone Sylvia 4th
H C.—3072

Class 374—Large White Sows, born in 1924, before July 1

- 3097 I (#10, & R N for Champion)—EDMUND WHERRY Bourne Lincs, for Bourne Beatrice 181st (T N 5508) born Jan 6, s Bourne King David 36437, d Beatrice of Bourne 10304 by Bourne Big Ben 28th 28845
- 3094 II (#5)—ROBERT GRAHAM LILL Moreton Hall, Congleton, for Moreton Muriel 4th (I N 150) born Jan 17 s Caldmore Banner 4th 36569, d Muriel of Moreton 68830 by Holmouddley Jay 26.47
- 3089 III (#3)—J PIERPONT MORGAN, Wall Hall, Aldenham Wiltford for Aldenham Bonnie Queen (I N 670) born Feb 4, s Furk of Aldenham 37811, d Aldenham B Q 88250 by Bourne Crab 20063
- 3098 IV (#2)—EDMUND WHERRY, for Bourne Beatrice 183rd 129236 (T N 5510) born Jan 6, s Bourne King David 36437, d Beatrice of Bourne 103054 by Bourne Big Ben 26th 28845
- 3083 V (#1)—SIR GILBERT GREENALL BART, CVO, Walton Hall Warrington for Walton Sunshine 3rd 132220 (I N 488) born Jan 6, s Nonsuch of Walton 2nd 4197, d Sunshine of Walton 109224 by Shipley Major 30411
- 3084 R N—SIR GILBERT GREENALL, BART, CVO, for Walton Sunshine 4th.
H C.—3090

Class 375—Large White Sows, born in 1924, on or after July 1

- 3120 I (#10)—WM WRIGHT & SONS (YORK) LTD 9 Goodramgitt, York for Barfield Queen 2nd (I N 169) born July 3, s Bourne Bar None 290th 40353, d Barfield Queen 102994 by Lockwith Bunch 34211
- 3118 II (#5)—WM WRIGHT & SONS (YORK), LTD for Barfield Lady (I N 163), born July 2, s Barfield Statesman d Bourne Lady 21st 103436 by Bourne Bar None 125th 28835
- 3116 III (#3)—EDMUND WHERRY Bourne, Lincs for Bourne Bonetta 88th 128282 (T N 5737) born July 7 s Broker of Bourne 40617, d Bourne Bonetta 1st 103306 by Bourne Champion Boy 3 091
- 3107 IV (#2)—SIR GILBERT GREENALL BART CVO Walton Hall Warrington for Walton Mary 3rd (I N 788) born July 3 s Nonsuch of Walton 2nd 41971, d Mary of Walton 107066 by Worsley Jay 100th 34479
- 3106 V (#1)—SIR GILBERT GREENALL BART, CVO for Ford Primrose 7th (T N 476), born July 31 bred by T G Williams The Ship Walton Warrington, s Worsley Furk 167th 27703, d Lord Primrose 3rd 7860 by Emperor of Walton 4th 26403
- 3119 R N—WM WRIGHT & SONS (York) Ltd for Barfield Princess 2nd
H C.—3103, 3115, 3117 C—3104, 3108

Class 376—Two Large White Sows, born in 1925

- 3138 I (#10)—EDMUND WHERRY, Bourne Lincs for Bourne Champion Queen 60th (T N 5887) and Bourne Champion Queen 61st (I N 5898) born Jan 3 s Bourne King David 30th 40543 d Bourne Champion Queen 5th 76940 by Napperton B y 24471
- 3126 II (#5)—SIR GILBERT GREENALL BART, CVO Walton Hall Warrington for Walton Primrose 42nd & 43rd (I N 31 and 34) born Jan 10, s Boald Furk 33117, d Duston Primrose 2nd 78326 by Dollar of Duston 23285
- 3122 III (#3)—PETER BOWDOCK The Pitts Cuddington Mulpas for Cuddington North Lassie 3rd & 4th (I N 10 and 13) born Jan 3, s Bushes John, d Brampton Lassie 6th 77162 by Victor of Brampton 30761
- 3125 IV (#2)—SIR GILBERT GREENALL, BART, CVO, for Walton Sunshine 7th & 9th (T N 12 and 13) born Jan 3, s Barfield Banner 40099, d Sunshine of Walton 109224 by Shipley Major 30411
- 3129 V (#1)—IRNIQT HARDING, Packwood Grange, Dorridge, Warwickshire, for Packwood Sally 40th (T N 1810) and Packwood Sally 41st (T N 1811) born Jan 1, s Bourne David 26th 40541 d Packwood Sally 20th 80158 by Bourne Bar None 8th 28787
- 3121 R N—ARCHER BELLWOOD, Mount Pleasant, Kirton Lindsey, Lincs, for Kirton Lady 18th and 20th.
H C.—3134, 3137 C—3135

¹ Champion Gold Medal value £5 5s, given by the National Pig Breeders' Association, for the best Large White Sow in Classes 373 to 375

Middle Whites.

Class 377.—*Middle White Boars, born in or before 1923.*

- 3145 I. (£10, Champion, & R. N. for Champion.)—CHIVERS & SONS, LTD, Histon, Cambridge, for Wrattling Woodman 35957 (1 N. 2), born June 18, 1921, bred by I. Sainsbury, Blunts Hall, Little Wrattling, s. Histon Woodman 28099, d. Histon Choice 19th 84576 by Shrewsbury 19a11
- 3163 II. (£5)—CHARLES SPENCER, Milpond, Little Oakley, Harwich, for Holywell Peter 50301 (1 N. 551), born June 2, 1923, s. Holywell Oakley 44603, d. Holywell Pet 97490 by Histon Milpond 35181
- 3144 III. (£3)—A. W. C. BUTLER, Stud Farm, Flnstall, Bromsgrove, for Don of Wishaw 38469 (1 N. 0115), born Aug. 19, 1921, bred by H. H. Coldwell Horfall, Lrdington, s. Bilton of Rickerscote 31285, d. Rickerscote Ruby 31d 74954 by Wharfedale Revel 25661
- 3150 IV. (£2)—W. HALLAS, Bank House Farm, Hilsby, for Squire of Morpeth 35781 (1 N. 90), born Dec. 16, 1920, bred by Wharnccliffe War Hospital, Shildon s. Boby of Wharnccliffe 31301, d. Wharnccliffe Pattie 3rd 63860 by Pendley of Wharnccliffe 28...3
- 3156 V. (£1)—LEOPOLD C. PAGER, Middlethorpe Hall, York, for Wharfedale Jerry 51689 (1 N. 332), born July 27, 1922, s. Wharfedale Neptune 35837, d. Wharfedale Ladiance 57772 by Wharfedale Deliverance 35575
- 3158 R. N.—W. R. FARTRIDGE, The Manor House, Woodmancote, Cirencester, for Histon Proud Boy
H. C.—3141, 3150, 3161 C.—3167

Class 378.—*Middle White Boars, born in 1924, before July 1.*

- 3177 I. (£10, & R. N. for Champion.)—LEOPOLD C. PAGER, Middlethorpe Hall, York, for Wharfedale Clunker 51673 (1 N. 045), born Jan. 18, s. Illuminator of Wharfedale 44935, d. Wharfedale Phosphorine 12612 by Wharfedale Neptune 37897
- 3175 II. (£5)—MRS. VICTOR HAYWARD, Bookham Grove, Great Bookham, for Bookham Super Tax (1 N. 375), born Jan. 12, s. Caldmore Super Tax 43545, d. Beenham Cloke 94432 by Pendley of Llanham 55555
- 3172 III. (£3)—W. J. LEBLINS, Langley Gorse, Walmley, Birmingham, for Wishaw Don 51823 (1 N. 06), born Feb. 2, s. Don of Wishaw 38469, d. Wishaw Grace 2nd 87880 by Sheffield 32353
- 3171 IV. (£2)—F. N. BLUNDELL, Crosby Hall, Blundellands, Liverpool, for Mistley Hearty (T. N. 23), born Jan. 9, bred by Brig Gen B. Atkinson, C.B., C.M.G., Mistley Hall, Manningtree, s. Mistley Miller 45309, d. Mistley Hartday 3rd 98818 by Wharfedale Frost 32579
- 3176 V. (£1)—THE MARQUESS OF LONDONDERRY, K.G., P.C., Plas Machynlleth, Machynlleth, for Histon Woodman 23rd (T. N. 712), born Jan. 5, bred by Chivers & Sons, Ltd., Histon, Cambridge, s. Wrattling Woodman 35957, d. Histon Prudence 5th 84092 by Histon Rover 2805
- 3173 R. N.—LORD GLANLEY, Lackham, Lacock, Wilts, for Lackham Wireless.
H. C.—3181.

Class 379.—*Middle White Boars, born in 1924, on or after July 1.³*

- 3201 I. (£10)—LEOPOLD C. PAGER, Middlethorpe Hall, York, for Wharfedale Touchstone 51785 (T. N. 683), born July 2, s. Lramp of Wharfedale 46649, d. Wharfedale Saphira 101494 by Wharfedale Frost 32579
- 3211 II. (£5)—MRS. SOPHIE WHITBURN, Amport, Andover, for Amport Scotty (T. N. 665), born July 3, s. Scotty of Nonsbury 46323, d. Yateley Medina 127256 by Nonsbury Valour 32099
- 3208 III. (£3)—CHARLES SPENCER, Milpond, Little Oakley, Harwich, for Holywell Pal (T. N. 648), born July 27, s. Holywell Paragon 44697, d. Mistley Hartday 9th 98824 by Mistley Sundon 35449
- 3185 IV. (£2)—COMMANDER AND MRS. BOULNOIS, The Navy Pig Farm, Yateley, Hants, for Yateley Salopina 2nd (T. N. 368), born July 5, s. Salopina of Prestwood 32315, d. Beenham Hilda 2nd 71820 by Hope of Hammonds 25361
- 3207 V. (£1)—MRS. HAYES SADLER, Little Hallingbury Park, Bishops Stortford, for Nonsbury Scotty 5th (1 N. 289), born Sept. 9, s. Nonsbury Scotty 3rd 45561, d. Pendley Perfection 25th 121974 by Hlawthorn Sultan 38741
- 3189 R. N.—CHIVERS & SONS, LTD, Histon, Cambridge, for Histon Rover 68rd.
H. C.—3192, 3196 C.—3190 3200.

Class 380.—*Middle White Boars, born in 1925*

- 3240 I. (£10)—MRS. SOPHIE WHITBURN, Amport, Andover, for boar (T. N. 773), born Jan. 1; s. Histon Rover 50th 44585, d. Amport Cameo 4th by Wharfedale Jameson 3rd 28341
- 3229 II. (£5)—LEOPOLD C. PAGER, Middlethorpe Hall, York, for Wharfedale Headlight (T. N. 843), born Jan. 11, s. Illuminator of Wharfedale 44935, d. Wharfedale Zeresh 101430 by Wharfedale Deliverance 32575.

¹ Champion Gold Medal, value £5 5s, given by the National Pig Breeders' Association, for the best Middle White Boar in Classes 377 to 380

² Silver Challenge Cup, value Thirty Guineas, given by the National Pig Breeders' Association, for the best Middle White Pig in Classes 377 to 383

³ Prizes, except Fourth and Fifth, given by the National Pig Breeders' Association.

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- 3216 III. (#3).—**COMMANDER and MRS BOULNOIS, The Navy Pig Farm, Yateley, Hants, for boar (T N 506), born Jan 6; s Yateley Hannibal, d Yateley Niobe 2nd by Norsbury Valour 92099
- 3236 IV. (#3).—**CHARLES SPENCER, Milpond, Little Oakley, Harwich, for Holywell Pasha (T N 689), born Jan 25, s Holywell Oakley 44695, d Holywell Pattle 97484 by Histon Milpond 35161
- 3220 V. (#1).—**LORD GLANELY, Lackham, Lacock, Wilts, for Lackham Guard (T N 380), born Jan 6, s Histon Rover 88th 44561, d Norsbury Hansom 120888 by Norsbury Hero 32093
- 3217 R. N.—**A DENTHAM, Lower Crows Nest Farm, Lightcliffe, Halifax, for Lightcliffe Hermes. H. C.—3215, 3222, 3230, 3234 H. C.—3218, 3219, 3238, 3239

Class 381.—Middle White Breeding Sows, born in or before 1923

- 3260 I. (#10, Champion, & Champion *).—**IROPOLD C PAGET, Middlethorpe Hall, York, for Holywell Pamela 117694 (T N 517), born Aug 8, 1922, farrowed March 25, bred by Charles Spencer, Milpond, Little Oakley, Harwich, s Histon Milpond 35161, d No 1 of Harthay 51682 by Holywell Durham 23141
- 3252 II. (#5).—**W HALLAS, Bank House Farm, Helsby, Cheshire, for Morpeth Jewel 85980 (T N 159), born April 24, 1921 farrowed Jan 4, bred by A Grix, Whalton, Morpeth; s Peene Gunner 28201, d Beechcroft Hope 62472 by Rickeracote Juggler 25525
- 3259 III. (#3).—**RALPH A MITCHELSON, Pullington, Benenden, Cranbrook for Pullington Pamela 122628 (T N 302), born Jan 1 1923, farrowed Feb 14; s Sunhill Swell 35807, d Houden Patricia 56804 by Sundon M T I 21231
- 3247 IV. (#2).—**CHIFFERS & SONS, LTD, Histon, Cambridge, for Hawthorn Lady Holly 2nd 116906 (T N 68), born Dec 30, 1922, farrowed Jan 14, bred by Hawthorn Herd Ltd, The Hawthorns, Henley on Thames, s Woodman of Hawthorn 39751, d Hawthorn Holly 84300 by Histon Baron 31747
- 3267 V. (#1).—**MRS HAYES SADLER, Little Hallingbury Park, Bishops Stortford, for Parkhill Perfection 12th 99344 (T N 205), born Feb 25, 1922, farrowed Feb 20, bred by J Clarke, Park Hill Tring, s Peene Park Keeper 35537, d Park Hill Perfection 7th 86326 by Pendley Squire 25487
- 3248 R. N.—**CHIFFERS & SONS, LTD, for Histon Welcome 19th. H. C.—3244, 3245, 3250, 3274 H. C.—3258, 3270.

Class 382.—Middle White Sows, born in 1924, before July 1.

- 3297 I. (#10, & R N for Champion *).—**ARTHUR LENTY, Salts Place, Loose, Kent, for Salts Choice 2nd 141682 (T N 22), born Jan 17, s Wharfedale Prince 32625, d Oxney Choice 5th 12144 by Oxney Revel 35505
- 3289 II. (#5).—**W HALLAS, Bank House Farm, Helsby, Cheshire, for Hallastone Mona 2nd 136762 (T N 48), born Jan 1, s Candidate of Hallastone 44123, d Chequer Mona 95126 by Histon Shrewsbury 9th 35179
- 3287 III. (#3).—**LORD GLANELY, Lackham, Lacock, Wilts, for Lackham Rosadora 138510 (T N 270), born Jan 1, s Norsbury Vaughan 39201, d Rosadora of Norsbury 123184 by Histon Rover 8075
- 3305 IV. (#2).—**MAJOR PROCT & PARTNERS, Hill Place Farm, Knapp Hill, Surrey for Hallastone Mona 4th 136766 (T N 484), born Jan 1, bred by W Hallas, Bank House Farm, Helsby, s Candidate of Hallastone 44123, d Chequer Mona 95126 by Histon Shrewsbury 9th 35179
- 3300 V. (#1).—**MRS HAYES SADLER, Little Hallingbury Park, Bishops Stortford, for Park Hill Perfection (T N 295), born Jan 21, bred by J Clarke, Park Hill, Tring, s Park Hill Diamond 45787, d Park Hill Perfection 12th 99344 by Peene Park Keeper 35537
- 3286 R. N.—**WILLIAM H GILPIN, Cobble Hall, Roundhay, Leeds, for Wharfedale Rita. H. C.—3285, 3290, 3292, 3298, 3302 H. C.—3278, 3279, 3281 3283, 3288

Class 383.—Middle White Sows, born in 1924, on or after July 1.

- 3321 I. (#10).—**CHIFFERS & SONS, LTD, Histon, Cambridge, for Histon Rosadora 48th (T N. 1069), born July 1; s Histon Baron 31747, d Histon Rosadora 8th 84694 by Histon Wanderer 25349
- 3338 II. (#5).—**IROPOLD C PAGET, Middlethorpe Hall, York, for Wharfedale Apple Blossom 143800 (T N 699), born July 5, s Councilor of Wharfedale 46506, d Southmore Raspberry 100644 by Southmore Chief 35769
- 3337 III. (#3).—**ARTHUR LENTY, Salts Place, Loose, Kent, for Salts Bettina 2nd 141672 (T N. 88), born Aug 12, s Councilor of Wharfedale, d Wharfedale Bettina 87674 by Wharfedale Delightful 28335
- 3344 IV. (#2).—**MRS HAYES SADLER, Little Hallingbury Park, Bishops Stortford, for Norsbury Grace (T N 145), born July 3; s Brockenote Prince 6th 43457, d Oaken Tonic 121196 by Rambler of Oaken 39343
- 3352 V. (#1).—**MRS ROSE WHITEBURN, Ampport, Andover, Hants, for Ampport Medina 2nd (T N 667), born July 3, s Scotty of Norsbury 46323, d Yateley Medina 127256 by Norsbury Valour 32099
- 3330 R. N.—**MRS VICTOR HAYWARD, Bookham Grove, Great Bookham, for Bookham Bet. H. C.—3319, 3339, 3340 H. C.—3329, 3336, 3343

¹ Silver Challenge Cup, value Thirty Guineas, given by the National Pig Breeders' Association, for the best Middle White Pig in Classes 377 to 383

² Champion Gold Medal, value £5 5s, given by the National Pig Breeders' Association for the best Middle White Sow in Classes 381 to 383.

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Class 384.—Two Middle White Sows, born in 1925.

- 3353 I. (#10).—S. BIDE & SONS, LTD., Pedlgree Pig Farm, Farnham, for sows (T.N. 419 and 421), born Jan. 4; *s.* Wharnclyffe Master 46847, *d.* Athara of Compton 111218 *by* Preatwood Royalist 32217.
- 3358 II. (#5).—MRS. HAYES SADLER, Little Hallingbury Park, Bishops Stortford, for sows (T.N. A 431 and A 432), born Jan. 7; *s.* Histon Milpond 35161, *d.* Beenham Hagar 3rd 82390 *by* Pendley Swell 32183.
- 3359 III. (#3).—MRS. SOFER WHITTURN, Ampport, Andover, Hants, for Ampport Peerless 5th & 6th (T.N. 818 and 821), born Jan. 11; *s.* Histon Rover 50th 44585, *d.* Ampport Peerless 3rd 133090 *by* Scotty Norsbury 46323.
- 3356 IV. (#2).—MRS. R. M. FOOT, White Hill, Berkhamsted, for sows (T.N. 54 and 57), born Jan. 8, *s.* Hammonds Hasty 44349, *d.* Hammonds Chocle 116534 *by* Wharfedale Hector 35879.
- 3362 V. (#1).—ARTHUR LENEX, Salts Place, Loose, Kent, for Salts Diana (T.N. 142) and Salts Diana 2nd (T.N. 145), born Jan. 3; *s.* Salts Admiral 46275, *d.* Sherenden Actress *by* Sherenden Imperative 39427.
- 3366 R. N.—LEOPOLD C. PAGET, Middlethorpe Hall, York.
H. C.—3357, 3359. C.—3354, 3358, 3300.

Tamworths.

Class 385.—Tamworth Boars, born in or before 1923.

- 3371 I. (#10, & R. N. for Champion.¹)—F. W. HOLT, The Grove, Wishaw, Erdington, for Knowle Joshua 47131 (T.N. 510), born March 12, 1923, bred *by* the late R. Ibbotson, The Hawthorns, Knowle; *s.* Knowle Joseph 36009, *d.* Queen of Basildon 78252 *by* Whitacre Fireway 25821.
- 3370 II. (#5).—CHARLES L. COXON, Milton, Pembroke, for Milton Bean (T.N. 144), born July 6, 1923; *s.* Roxley Exeter 36047, *d.* Beauty of Milton 76092 *by* Mons of Middleton 25775.

Class 386.—Tamworth Boars, born in 1924.²

- 3372 I. (#10, Champion.¹ & Champion.³)—R. P. HAYNES, Delves Green Farm, Wednesbury, Staffs, for Red Chief of Caldmore 51975 (T.N. 637), born Jan. 7, bred *by* the late R. Ibbotson, The Hawthorns, Knowle; *s.* Knowle Newcastle, *d.* Knowle Vesta 88134 *by* Knowle Bedford 32669.
- 3373 II. (#5).—ARTHUR OWEN JONES, Orford House, Croft, Warrington, for Sunbeam Squire 2nd (T.N. 44), born Jan. 4, bred *by* F. W. Holt, The Grove, Wishaw, Erdington; *s.* Knowle Bruce 36013, *d.* Knowle Queen Mary 88118 *by* Knowle Dreadnought 23419.
- 3377 III. (#3).—THEO. A. STEPHENS, Frensham Manor, Farnham, Surrey, for Neuburle Cayenne (T.N. 163), born June 17, bred *by* Captain R. A. Angler, New Mousefield, Speen, Newbury; *s.* Knowle Bruce 36013, *d.* Knowle Venus 76210 *by* Basildon Max 25683.
- 3378 R. N.—THE EXORS. OF THE LATE JOSHUA HIRST WHEATLEY, Berkswell Hall, Coventry, for Berkswell Brine.

Class 387.—Tamworth Boars, born in 1925.

- 3381 I. (#10).—F. W. HOLT, The Grove, Wishaw, Erdington, for Sunbeam Squire 3rd (T.N. 79), born Jan. 20; *s.* Knowle Joshua 47131, *d.* Milton Pearl 127448 *by* Mons of Middleton 25775.
- 3380 II. (#5).—F. W. HOLT, for Sunbeam Charlie (T.N. 93), born Jan. 1; *s.* Sunbeam Squire 2nd, *d.* Sunbeam Ginger Jane *by* Whitacre Wanderer 39865.
- 3382 III. (#3).—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading, for Basildon Newcastle (T.N. 308), born Jan. 29; *s.* Milton Bishop 2nd 36041, *d.* Basildon Marigold *by* Knowle Newcastle 47143.
- 3384 R. N.—THEO. A. STEPHENS, Frensham Manor, Farnham, Surrey.
H. C.—3383.

Class 388.—Tamworth Breeding Sows, born in or before 1923.

- 3391 I. (#10, R. N. for Champion.² & Champion.⁴)—THEO. A. STEPHENS, Frensham Manor, Farnham, Surrey, for Knowle Felicity 127406 (T.N. 501), born Oct. 10, 1922, farrowed Jan. 13, bred *by* the late R. Ibbotson, The Hawthorns, Knowle, Dorridge; *s.* Knowle Redstar 32713, *d.* Knowle Favourite 2nd 76160 *by* Basildon Max 25683.
- 3387 II. (#5).—F. W. HOLT, The Grove, Wishaw, Erdington, for Milton Pearl 127448 (T.N. 80), born Jan. 2, 1922, farrowed Jan. 20, bred *by* C. L. Coxon, Milton, Pembroke; *s.* Mons of Middleton 25775, *d.* Middleton Mainz 57614 *by* Mitcheldene of Middleton 23343.
- 3389 III. (#3).—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading, for Basildon Barbara 101966 (T.N. 175), born Jan. 2, 1922, farrowed Jan. 5; *s.* Knowle Darlington 32687, *d.* Beauty of Milton 76090 *by* Mons of Middleton 25775.
- 3392 R. N.—THEO. A. STEPHENS, for Knowle Virtue.
H. C.—3386.

¹ Champion Gold Medal, value £5 5s., given *by* the National Pig Breeders' Association, for the best Tamworth Boar in Classes 385 to 387.

² Prizes given *by* the National Pig Breeders' Association.

³ Silver Challenge Cup, value Thirty Guinea, given *by* the National Pig Breeders' Association, for the best Tamworth Pig in Classes 385 to 389.

⁴ Champion Gold Medal, value £5 5s., given *by* the National Pig Breeders' Association, for the best Tamworth Sow in Classes 388 and 389.

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Class 389.—*Tamworth Sows, born in 1924*

- 3894 I. (#10, & R. N. for Champion ¹)—F. W. HOLT, The Grove, Wishaw, Erdington, for Sunbeam Sunstar 2nd (I. N. 49), born Jan. 4, s. Knowle Bruce 36013, d. Knowle Queen Mary 38118 by Knowle Draught 28419
- 3401 II. (#5)—THE EXORS. OF THE LATE JOSHUA HIRST WHARTELY, Berkswell Hall, Coventry, for Berkswell Jenny 144698 (T. N. 33), born May 28, bred by the late J. H. Whartley, s. Knowle Newcastle 47143, d. Jemima of Berkswell 10.046 by Pulley Marcus 32749
- 3893 III. (#3)—I. W. HOLT, for Milton Beauty 10th 144760 (I. N. 158), born Jan. 10, bred by C. L. Coxon, Milton Pembridge, s. Roxley Lactar 36047, d. Beauty of Milton 2nd 76092 by Mons of Middleton 25775
- 3399 R. N.—J. A. H. STANSFELD, Bates, Wittersham, Kent, for Oxney Golden Queen.
H. C.—3397

Class 390.—*Two Tamworth Sows, born in 1925*

- 3403 I. (#10)—I. W. HOLT, The Grove, Wishaw, Erdington for Sunbeam Pearl 1st & 2nd (I. N. 80 and 82) born Jan. 20, s. Knowle Joshua 47131, d. Milton Pearl 127448 by Mons of Middleton 25775
- 3402 II. (#5)—I. W. HOLT, for sows (T. N. 92 and 94), born Jan. 1, s. Sunbeam Squire 2nd, d. Sunbeam Ginger Jane by Whitacre Wandrer 39865
- 3404 III. (#3)—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading for sows (T. N. 327 and 328), born Jan. 29, s. Milton Bishop 2nd 36041, d. Basildon Marigold by Knowle Newcastle 47143
- 3406 R. N.—THO. A. STEPHENS, Frensham Manor, Farnham, for Hookstile Amy and Hookstile Anne
H. C.—3407

Berkshires.

Class 391.—*Berkshire Boars, born in or before 1923*

- 3414 I. (#10, Champion, & Champion ²)—JOHN D. PLAYFR, Lenton Hurst, Nottingham, for Leadenham Duke B. 749 born Jan. 15 1923, bred by Captain J. S. Reeve, Leadenham House, Lincoln, s. Pamber Paragon 23411, d. Leadenham Turvey 5th 25638 by Manor Robert 22770
- 3412 II. (#5)—J. T. EASON, Woodhouse Farm Smannel, Andov for Woodhouse Boniface B. 1013 born July 28 1923, s. Dunmanor Acme B. 429, d. Dunmanor Agnes 3rd 25484 by Iwerne Nonsuch 23475
- 3413 III. (#3)—I. L. MAITIN, Ashe Warren Overton, Hants for Saddon Monty B. 337, born March 20 1922, bred by J. Tricker, Marsh Farm Stalbridge, Dorset s. Heale War Iund 24172 d. Prince of Royal 5th 19895 by Motcombe Cognac 16805
- 3416 IV. (#2)—FRANK TOWNEND, Highfield, Moor Allerton Leeds for Highfield Royal Pygmalion 3rd B. 852 born Sept. 8, 1923 s. Pygmalion 19872, d. Highfield Princess Royal 4th S. 1405 by Pamber President 22702
- 3417 R. N.—J. L. TRIFFITT, 1A St Oswald's Road, York, for Highfield Marina President 2nd.
C.—3411

Class 392.—*Berkshire Boars, born in 1924, before July 1*

- 3419 I. (#10, & R. N. for Champion ³)—MAJOR CLIVE BEHRENS, Swinton Grange, Malton, for Swinton President B. 1135 born Jan. 8, s. Highfield Royal President B. 338, d. Swinton Margaret S. 2216 by Basildon Rubin 24870
- 3422 II. (#5)—HON. MRS. BRUCE WARD, Godinton, Ashford, Kent, for Highfield Marina President 5th B. 1303, born March 29, bred by Frank Townend, Highfield Moor Allerton, Leeds, s. Highfield Royal President 2nd B. 339, d. Highfield Marina 2nd S. 1402 by Pamber President 22702
- 3418 III. (#3)—COLONEL H. LYON ANDERTON, Ingmanthorpe Hall, Wetherby for Ingmanthorpe Conqueror 1st B. 1265 born Jan. 9, s. Highfield Royal President 3rd B. 340, d. Highfield Marina 3rd S. 1403 by Pamber President 22702
- 3420 R. N.—W. A. BINDLEY, Pamington Court Farm, Lewkesbury, for Pamington Rupert

Class 393.—*Berkshire Boars, born in 1924, on or after July 1 ⁴*

- 3428 I. (#10)—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading, for Manor Referee, born July 12, bred by Arthur Hiscock, Manor Farm Blandford, s. Manor Premier 25187, d. Basildon Virtue 14th S. 1379 by Hurry Onward 22033
- 3431 II. (#5)—J. L. TRIFFITT, 1A St Oswald's Road, York, for Fulford Futurist B. 1284, born July 30, s. Rudgate Pygmalion B. 901, d. Saddon Bridget 25999 by Saddon Kingmaker 25998

¹ Champion Gold Medal value £ 5s, given by the National Pig Breeders' Association, for the best Tamworth Sow in Classes 388 and 89

² Challenge Cup, value twenty guineas, given by the British Berkshire Society for the best Berkshire Boar in Classes 391 to 394

³ The "Eaton" Silver Challenge Cup, value fifty guineas given through the British Berkshire Society, for the best Boar or Sow in Classes 391 to 397. A Gold Medal was given by the British Berkshire Society to the Breeder of this Champion Pig

⁴ Prizes given by the British Berkshire Society

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3424 III. (25)—VICTOR D DENNIS, New Hall Farm, Ruabon, for New Hall King 2nd B. 1816, born Oct 14, s. Highfield Royal Pygmalion 26309, d. British Queen 20415 by Murrell King 19579

3430 E. N.—FRIEND SYKES, Richings Park, Colnbrook, for Richings Beauty Royalist 2nd.

Class 394.—Berkshire Boars, born in 1925.

3440 I. (10)—MAJOR J. A. MORRISON, D S O, Basildon Park, Goring, Reading, for Basildon Pioneer, born Jan 2, s. Jamaica Frederick 24658, d. Manor Sweet Bess S 3597 by Iwerne First Grade 23231

3438 II. (25)—T. L. MARTIN, Ashe Warren, Overton, Hants, for Ashe Monarch B 1459, born Feb 2, s. Suddon Monty B 337, d. Hammonds Belle 4th S 4662 by Hurry Onward 22033

3439 III. (23)—T. L. MARTIN, for Ashe Premier B 1460, born Jan 10, s. Highfield British Pygmalion B 845, d. Ashe Virtue S 4097 by Money Bag 23974

3433 IV. (22)—MAJOR CLIVE BEHRENS, Swinton Grange, Malton, for boar, born Feb 5; s. Highfield Royal President B 338, d. Swinton Margaret S 2216 by Basildon Rubin 24670.

3445 V. (21)—FRANK TOWNEND, Highfield, Moor Allerton, Leeds, for Highfield Roy Pygmalion 2nd B 1420, born Jan 2, s. Highfield Royal Pygmalion 3rd B 852, d. Highfield Marina 2nd S 1402 by Pamber President 22702

3436 E. N.—J. T. EASON, Woodhouse Farm, Smannel, Andover, for Woodhouse Bonny Boy.

Class 395.—Berkshire Breeding Sows, born in or before 1923

3449 I. (10). (20 & R N for Champion 1)—R. W. CARSON, Lea Hall, Hatfield Heath, Harlow, for Suddon Progress (1 N 64), born July 23, 1923, farrowed March 12, bred by J. Fricker, Marsh Farm, Stalbridge, Dorset, s. Heale War Lunn 24172, d. Manor Marquitta 24326 by Braishfield Buck 19909

3450 II. (25)—J. I. LASON, Woodhouse Farm, Smannel, Andover, for Mount Select S 2098, born Jan 11, 1923, farrowed Feb 14, bred by T. A. Idney Hayter, Whitechurch, Hants, s. Heale Nutmeg 2nd 26448, d. Herriard Select 2nd 23008 by Basildon Rogue 20720

3458 III. (23)—FRANK TOWNEND, Highfield, Moor Allerton, Leeds, for Highfield Marina 2nd S 1402, born May 23, 1923, farrowed Jan 2, s. Pamber President 22702, d. Manor Marina 24324 by Braishfield Buck 19909

3456 IV. (22)—I. L. MARTIN, Ashe Warren, Overton, Hants, for Suddon Flapper S 1891, born July 10, 1922, farrowed Feb 5, bred by J. Fricker, Marsh Farm, Stalbridge, Dorset, s. Heale War Lunn 24172, d. Manor Marcella 20008 by Top Emerald 19850

3453 V. (21)—THE LARL OF HAREWOOD, Harewood House, Leeds, for Harewood Princess S 4533, born Feb 17, 1923, farrowed Jan 28, s. Murrell Hottentot Nigger B 183, d. Harewood Rosalind S 115 by Herriard Clondyke 23100

3446 E. N.—COLONEL H. LYON ANDERTON, Ingmanthorpe Hall, Wetherby, for Highfield British Queen 6th.

Class 396.—Berkshire Sows, born in 1924, before July 1.

3467 I. (10)—J. T. LASON, Woodhouse Farm, Smannel, Andover, for Woodhouse Miss Prim S 4740, born May 28, s. Herriard Columbus 2nd 24873, d. Mount Selection S 2099 by Heale Nutmeg 2nd 20448

3483 II. (25)—W. I. SHERIFF, Ascots, Hatfield, for Ascots Princess 2nd S 4109, born Jan 8; s. Eaton Benefactor 26198, d. Ascots Princess S 4104 by Minley Felix 24161

3484 III. (23)—FRANK TOWNEND, Highfield, Moor Allerton, Leeds, for Highfield Marina British Queen 5 4898, born March 29, s. Highfield Royal President 2nd B 839, d. Highfield Marina 2nd S 1402 by Pamber President 22702

3463 IV. (22)—MAJOR CLIVE BEHRENS, Swinton Grange, Malton, for Swinton Lucky Molly, born Jan 18, s. Murrell Live Scott B 37, d. Swinton Sweet Molly 4th S 1988 by Basildon Rubin 24670

3477 V. (21)—MAJOR J. A. MORRISON, D S O, Basildon Park, Goring, Reading, for Basildon Maid 8th S 4893, born Jan. 9, s. Murrell Mike 21239, d. Sotwell Maid 2nd 23829 by Suddon Lord 21740

3474 E. N.—T. L. MARTIN, Ashe Warren, Overton, Hants, for Ashe Mimic.
E. C.—3473. C.—3468, 3478, 3480, 3482, 3485

Class 397.—Berkshire Sows, born in 1924, on or after July 1.

3496 I. (10)—FRANK TOWNEND, Highfield, Moor Allerton, Leeds, for Highfield Marina British Queen 4th S 5293, born Sept 12, s. Highfield British Pygmalion 3rd B. 847, d. Manor Marina 24324 by Braishfield Buck 19909

3497 II. (25)—FRANK TOWNEND, for Highfield Marina British Queen 5th S 5294, born Sept. 12, s. Highfield British Pygmalion 3rd B 847, d. Manor Marina 24324 by Braishfield Buck 19909

3495 III. (23)—FRIEND SYKES, Richings Park, Colnbrook, for Richings Princess Jennet 1st S 5222, born July 24, s. Richings Prince Diamond B. 254, d. Blauhearne Jane S. 896 by Herriard Premier 3rd 23110

3488 IV. (22)—MAJOR CLIVE BEHRENS, Swinton Grange, Malton, for sow, born July 1; s. Eaton Emperor B 558, d. Swinton Martha 9th S 4247 by Basildon Rubin 24670

¹ The "Eaton" Silver Challenge Cup, value 15fty Guineas, given through the British Berkshire Society, for the best Boar or Sow in Classes 391 to 397. A Gold Medal was given by the British Berkshire Society to the Breeder of this Champion Pig.

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3491 V. (♂1).—T. L. MARTIN, Ashe Warren, Overton, Hants, for Ashe Vain Girl S. 5285, born Aug. 29; s. Kingstone Forester B. 31, d. Abinger Vanity 23713 by Kingstone Peacemaker 21339.

3492 R. N.—W. F. SHERRIFF, Ascots, Hatfield, for Iwerne Star 4th.
H. C.—3487. C.—3498.

Class 398.—Two Berkshire Sows, born in 1925.

3506 I. (♂10).—T. L. MARTIN, Ashe Warren, Overton, Hants, for Ashe Maruja 1st S. 5367 and Ashe Maruja 2nd S. 5368, born Jan. 7; s. Highfield British Pygmalion B. 845, d. Hammonds Maruja 3rd S. 4663 by Biddeaden Beau B. 111.

3511 II. (♂5).—FRANK TOWNEND, Highfield, Moor Allerton, Leeds, for Highfield British Queen 8th S. 5291 and Highfield British Queen 9th S. 5292, born Jan. 2; s. Highfield Royal Pygmalion B. 852, d. Highfield Marina 2nd S. 1402 by Pamber President 22702.

3507 III. (♂3).—T. L. MARTIN, for Ashe Princess Dorothy 1st S. 5365 and Ashe Princess Dorothy 2nd S. 5366, born Jan. 22; s. Highfield British Pygmalion B. 845, d. Suddon Princess Dorothy S. 4094 by Heale War Lunn 24172.

3500 IV. (♂2).—MAJOR CLIVE BEHRENS, Swinton Grange, Malton, for sows, born Feb. 5; s. Highfield Royal President B. 338, d. Swinton Margaret S. 2216 by Basildon Rubin 24670.

3509 V. (♂1).—MAJOR J. A. MORRISON, D.S.O., Basildon Park, Goring, Reading, for sows, born Jan. 2; s. Jamaica Frederick 23658, d. Manor Sweet Bess S. 3597 by Iwerne First Grade 23231.

3505 R. N.—THE EARL OF HAREWOOD, Harewood House, Leeds.
C.—3504.

Cup.—FRANK TOWNEND.

R. N. for Cup.—T. L. MARTIN.

Large Blacks.

Class 399.—Large Black Boars, born in or before 1923.

3513 I. (♂10, & Champion).—WILLIAM BRACEY, Manor House, Martham, Gt. Yarmouth, for Martham Premier 25459, born July 17, 1922; s. Martham What's Wanted 15283, d. Avton Victorious 1st 46816 by Cornwood King John 8271.

3530 II. (♂5, & R. N. for Champion).—WALTER WOOLLAND, Baydon Manor, Ramabury, Wilts, for Valley General 2nd 25401, born Feb. 28, 1922, bred by J. C. Oliver, Ladock, Cornwall; s. Valley Result 18635, d. Trevisquite Victory 14th 30340 by strongest Pioneer 6997.

3512 III. (♂3).—HARRY E. BASTARD, Tinten Manor, St. Tudy, Cornwall, for Tinten Dandy 2nd 30745, born May 4, 1923; s. Ralton Hero 13241, d. Tinten Princess 4th 73608 by Fenton-gollan Lad 10567.

3528 IV. (♂2).—WALTER J. WARREY, Deacons Farm, Staplegrove, Taunton, for Kibbear Royal Willie 25777, born Sept. 9, 1922; s. Vahan Jack 5th 13845, d. Kibbear Lady Hilda 1st 58232 by Bavingbourn Squire 9053.

3522 V. (♂1).—MISS BOUGHTON KNIGHT, Tinker's Hill, Ludlow, for Bringewood Boy 27229, born June 25, 1922; s. Sheridhales Boy 1st 17731, d. Bringewood Treasure 77224 by Primley Luther 9901.

3521 R. N.—W. L. HOSKING & SONS, Fentongollan, Merther, Probos, Cornwall, for Fenton-gollan Result 6th.

H. C.—3515, 3523. C.—3516.

Class 400.—Large Black Boars, born in 1924, before July 1.

3532 I. (♂10).—WILLIAM BRACEY, Manor House, Martham, Great Yarmouth, for Martham Rising Tide A. 129, born Jan. 16; s. Martham Nomination 22397, d. Martham Mable 96996 by Martham What's Wanted 15283.

3537 II. (♂5).—TERAH F. HOOLBY, Dry Drayton, Cambridge, for Drayton Doctor A. 1233, born Feb. 18; s. Fentongollan Roger 10523, d. Wanborough Fairy 1st 70156 by Wanborough Walf 11410.

3536 III. (♂3).—F. E. HICKS, Treator House, Padstow, Cornwall, for Treator Ambassador A. 1081, born April 5; s. Tregirls Vicar 17355, d. Valley Kitty 3rd 28966 by Trevelios Marksman 7761.

3534 IV. (♂2).—F. M. FURZE, Goldstones Farm, Ashdon, Saffron Walden, for Newland Diameter A. 99, born Jan. 12, bred by Dr. A. R. Kay, The Manor House, Blakeney, Norfolk; s. Bardolph A1 25119, d. Newland Diana 109334 by Tiptree Rex 19017.

3540 R. N.—WALTER J. WARREN, Deacons Farm, Staplegrove, Taunton, for Kibbear Royal Prior 4th.
H. C.—3531.

Class 401.—Large Black Boars, born in 1924, on or after July 1.¹

3548 I. (♂10).—TERAH F. HOOLBY, Dry Drayton, Cambridge, for Drayton David A. 1235, born July 10; s. Drayton Sunstar 30449, d. Witham Lady 3rd 47166 by Bixley Chance 111503.

¹ The "Berkshire" Silver Challenge Cup, value £20, given through the British Berkshire Society, for the most points awarded in a combination of entries in Classes 391 to 398, on the basis of: Four points for a First Prize, three points for a Second Prize, two points for a Third Prize, one point for a Reserve Number, two points for a Championship, and one point for a Reserve for a Championship.

² Champion Prize of £10, given by the Large Black Pig Society, for the best Boar in Classes 399 to 402. A Silver Medal was given to the Breeder of the Champion Boar.

³ Prizes, except Fourth and Fifth, given by the Large Black Pig Society.

- 3549 II (#5).—W L HOSKING & SONS, Fentongollan, Merther, Probuss, Cornwall, for Fentongollan Dux 1st A 1057, born Aug 15, s Fentongollan Vassal 28689, d Fentongollan Magna Nigra 127098 by Fentongollan Victor 2nd 21425
- 3550 III (#3).—T F JAMPS, Chantersleir Farm, Norwood Hill, Horley, Surrey, for Trelockey Black Boy 4th A 1145, born July 1, s Hewas Duke 8th 28061, d Trelockey Black Lady 4th 95360 by Valley Ruler 2nd 15705
- 3546 IV (#2).—VISCOUNT LINDING, Newnham Paddox, Rugby, for Streetaston Paddy 2nd A 1147, born July 28, s Pooley Paddy 18161, d Streetaston Sundowner 9th 91380 by Cambria Deputy 23141
- 3545 V (#1).—A P COCKBURN, Stanborough Halwell, Devon, for Stanborough Sunstar A 1019, born Aug 10, s Drayton Scorchers 30447, d Stanborough Jean 1st 116204 by Awton Sampson 21891
- 3544 R N—A P COCKBURN, for Stanborough Scorchers.
H C—3552 C—3553

Class 402.—Large Black Boars, born in 1925

- 3570 I (#10).—TERAH F HOOLFY, Dry Drayton, Cambridge, for Drayton Donegal 1st B 107, born Feb 1, s Drayton Sunstar 30440, d Drayton Minerva 1st 79324 by Cornwood Longside 17441
- 3577 II (#5).—JOHN C OLVER Woodland Valley, Ladoek, Cornwall, for Valley Cadet B 143, born Jan 11, s Valley Outfit 29771 d Valley Climatis 3rd 106238 by Valley Sportsman 23733
- 3572 III (#3).—T F JAMPS, Chantersleir Farm Norwood Hill Horley Surrey, for Trelockey Up to Date 1st B 07 born Jan 2 s Trelockey Sportsman 2nd A 125, d Trelockey Black Lady 4th 95560 by Valley Ruler 2nd 15705
- 3554 IV (#2).—HARRY I BATTARD Inten Manor, St Tudy, Cornwall for Cornwood Huntsman B 19, born Jan 5, bred by J H Glover, Cornwood, s Cornwood Pilot 16037, d Cornwood I was 68th 90968 by Kilton Hero 13241
- 3569 V (#1).—G A GOODCHILD, Great Yeldham Hall, Great Yeldham, Essex, for Tartar Principal B 119, born Jan 13, s Drayton Mikado 1st 11859, d Tartar Queen G 88166 by Kedington Imbargo 17605
- 3562 R N—J W EDWARDS, Pednor House Chesham, for Pednor Democrat.
H C—3564, 3573 C—3560, 3567, 3580

Class 403.—Large Black Breeding Sows, born in or before 1923

- 3593 I (#10, & Champion).—JOHN H GIOVER Delmore Farm Cornwood Devon, for Cornwood Lass 73rd 96820 born Sept 13, 1922 farrowed April 12, s Westpethorwin Chief 1st 14433, d Cornwood Lass 58th 38332 by Fentongollan Naik 9455
- 3598 II (#5).—WALTER J WARREN, Deacons Farm, Staplegrave, Tinton, for Haselbury Dinah 114150, born Aug 19, farrowed Jan 16, bred by Major W Harrison, Haselbury, Crewkerne, s Kibbeare Royal Prior 3rd 21363, d Tinton Belle 48126 by Trevisquite Padstonian 7973
- 3588 III (#3).—WILLIAM BRACEY, Manor House, Martham, Great Yarmouth, for Martham Dinah A 79776, born Jan 8, 1921, farrowed Jan 20, s Valley Good Boy 13733, d Coltsall Dinah 21002 by Primley Huron 6173
- 3587 IV (#2).—H I BENNETT, Hawkenbury, Staplehurst, for Ambo Alpha 70658, born Jan 16, 1921, farrowed March 3 s Trevisquite Lord of the Manor 13045, d Witley Salome 33940 by Drayton Witley Hero 7157
- 3594 V (#1).—G A GOODCHILD, Great Yeldham Hall, Great Yeldham, Essex, for Tartar Victoria 1st 80544, born Jan 2, 1922, farrowed Jan 7, s Kedington Imbargo 17605, d Tartar Queen 8th 17524 by Kibbeare John 1st 5391
- 3591 R N—L W EDWARDS, Pednor House, Chesham, for Pednor Prudence. 1st
H C—3592 C—3589

Class 404.—Large Black Sows, born in 1924, before July 1

- 3607 I (#10).—H A BROWN, Croft House, Grendon Atherstone, for Grendon Quickmiver A 3076, born Feb 18, s Trevisquite Lord of the Manor 13045, d Grendon Quicklime 1st 84526 by Tinton Chief 12969
- 3603 II (#5).—H L BENNETT, Hawkenbury, Staplehurst, for Ambo Augusta 6th A 1926, born Jan 7, s Kingston Roland 26399, d Ambo Augusta 70648 by Trevisquite Lord of the Manor 13045
- 3612 III (#3).—JOHN C OLVER, Woodland Valley, Ladoek, Cornwall for Valley Deepside 3rd A 418, born Jan 13, s Valley Sportsman 23735, d Valley Deepside 17548 by Valley Big Ben 2nd 16205
- 3616 IV (#2).—WALTER WOOLLAND, Baydon Manor, Ramsbury, Wilts, for Baydon Nightingale 7th A 2772, born Jan 5 s Huntley Captain 24433, d Clipston Nightingale 4th 93890 by Drayton Dolcoatl 2nd 13287
- 3606 V (#1).—WILLIAM BRACEY, Manor House, Martham, Great Yarmouth, for Martham Smiling Lady A 2948, born Feb 20, s Martham Hero 20497, d Martham Black Bear 79870 by Tinton King Henry 13139
- 3613 R N—ALFRED PLYLE, Bussingbourn, Cambs, for Bussingbourn Bertha 3rd.
H C—3608, 3609 C—3611

¹ Silver Challenge Cup, value Twenty Guineas given by the Large Black Pig Society for the best Sow in Classes 403 to 405 A Silver Medal was given to the Breeder of the Champion Sow

Class 405.—Large Black Sows, born in 1924, on or after July 1.

- 3634 I. (**10**, & **R. N.** for Champion.)—JOHN C. OLVER, Woodland Valley, Ladoek, Cornwall, for Valley Clematis 12th A 4712, born July 15, s Valley Sportsman 23735, d Moorland Clematis 26498 by Vahan Perfection 6573
 3628 II. (**25**)—IRVING H. HOOLEY, Dry Drayton, Cambridge, for Drayton Duncathra 3rd A 4628, born July 10, s Drayton Sunstar 30449, d Witham Lady 3rd 47166 by Bixley Chance It 11503
 3617 III. (**23**)—WILLIAM BRACEY, Manor House, Martham, Great Yarmouth, for Martham Queens A 4592 born July 16, s Martham Nomination 22397, d Menna Queen 54th 61870 by Ralton Hero 13241
 3619 IV. (**22**)—CAPTAIN I. N. CROSS, D. S. O., Bannut Tree House, Castlemorton, Malvern, for Bannut Tree Ladylike 2nd A 3170, born July 15, s Bannut Tree Pharaoh 28119, d. Tiptree Ladylike 92320 by Tiptree Rex 19017
 3631 V. (**21**)—T. F. JAMES, Chantersluer Farm, Norwood Hill, Horley, for Treluckey Future Queen 5th A 4288, born July 14, s Hewas Duke 8th 28961, d Treluckey Future Queen 3rd 104752 by Trevisquite Principal 17485
 3629 R. N.—TERAH F. HOOLEY, for Drayton Duncathra 4th.
 H. C.—3618, 3622, 3627. C—3624, 3626, 3633

Class 406.—Two Large Black Sows, born in 1925

- 3647 I. (**10**)—JOHN H. GLOVER, Cornwood, Devon, for Cornwood Lass 51st B 24 and Cornwood Lass 80th B 22, born Jan 5, s Cornwood Pilot 16037, d Cornwood Lass 68th 90968 by Ralton Hero 13241
 3637 II. (**25**)—HARRY L. BASTARD, Tinten Manor, St. Tudy, Cornwall, for Tinten Black Bess 49th B 10, and Tinten Black Bess 50th B 12, born Jan 4, s Cornwood J. P. 2nd 28949, d Tinten Black Bess 34th 38340 by Cornwood King John 8271
 3643 III. (**23**)—E. W. EDWARDS, Pednor House, Chesham, for Pednor Best of All 1st B 56 and Pednor Best of All 2nd B 58, born Jan 1, s Pednor Anchorite 10th 29313, d Northdean Best of All 14th 106878 by Wilbraham Salary 10623
 3650 IV. (**22**)—MISS KAY MOWAT, Lira Farm, Malvern Wells, for McHeather Biddy 68th B 304 and McHeather Biddy 67th B 306, born Jan 2, s McHeather Bess 6th 25355, d McHeather Biddy 40th 104332 by Beacon Sambo 1691
 3651 V. (**21**)—CAPTAIN PERCY MUSKIE, Roundham Hall, Attleborough, for Roundham Levelsides 2nd and Roundham Levelsides 3rd, born Jan 10, s Ralton Hero 13241 d Trevisquite Levelsides 56th 81736 by Hendra Trevisquite 1433
 3652 R. N.—ALFRED FLYLE, Bassingbourn, Cambs, for Bassingbourn Grace 1st and Bassingbourn Grace 2nd.
 H. C.—3649 C.—3645

Gloucestershire Old Spots.

Class 407.—Gloucestershire Old Spots Boars, born in or before 1923

- 3656 I. (**10**, & **R. N.** for Champion.)—FREDERICK W. FANSHAW, Old Sulehay Lodge, Yarwell, Peterborough, for Sulehay Jumbo 5181, born May 2, 1923, s Hull House Jumbo 2nd 2962, d Dumbarton Pansy 9061 by Hedgecombe Lad 1022
 3654 II. (**25**)—JAMES D. BEAK, Malden Bradley Bath, for Malden Bradley General 2nd 5277, born March 15, 1923, s Ashton Dupper 4627, d Dinedor Barmud 5390 by Clivehill Actor 664
 3657 III. (**23**)—HENRY MATTHEWS, Down Farm, Winterbourne, Bristol for Winterbourne Premier 5531, born July, 1923, s Rampton Kruger 4806, d Winterbourne Lease 5735 by Yate Prince 1516
 3658 R. N.—GEORGE CARTER OLIVER, The Elms, Hurley, for Merriale Joe

Class 408.—Gloucestershire Old Spots Boars, born in 1924, before July 1.

- 3663 I. (**10**, Champion, & **R. N.** for Champion.)—F. HAROLD TURNBULL, Lower House Farm, Llantwit Major, Cardiff, for Llantwit Evan 5418 born Feb 9, s Stoke Hill Magnet 4516, d Llantwit Litch 13963 by Downside Duke 4146
 3661 II. (**25**)—BENNETT & HOWARD, Quarry Farm, Thornbury, Glos, for Huntingford Dauntless 5475, born March 12, bred by I. G. Bell, Huntingford, Charlfield, Glos, s Holmwood Dreadnought 4821, d Huntingford Josephine 16344 by Hells Major 2nd 2084
 3660 III. (**23**)—JAMES D. BEAK, Malden Bradley, Bath, for Malden Bradley General 3rd, born Jan 2, s Ashton Dupper 4627, d Malden Bradley Barmud 14640 by Malden Bradley Champion 3858
 3662 R. N.—SHERRIFF & SONS, Lemsford, Hatfield, for Naahes Premier 6th.

¹ Silver Challenge Cup, value Twenty Guinea, given by the Large Black Pig Society, for the best Sow in Classes 403 to 405. A Silver Medal was given to the Breeder of the Champion Sow

² Silver Challenge Cup value Twenty Guinea, given through the Gloucestershire Old Spots Pig Society, for the best Boar in Classes 407 to 410

³ Silver Challenge Cup, value 100 Guinea, given through the Gloucestershire Old Spots Pig Society, for the best Boar or Sow in Classes 407 to 413.

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Class 409.—Gloucestershire Old Spots Boars, born in 1924, on or after July 1.¹

- 8666 I (#10)—SHERRIFF & SONS, Lemsford, Hatfield, for *Nashes Duke* 4th 5517, born July 5, s Dorset Diver 4401, d *Nashes Duchess* 18th 16230 by Huntingford Polemarsh 4210.
 8667 II (#5)—SHERRIFF & SONS for *Nashes Duke* 7th 5532, born Oct 27, s Ayot Popgun 5405, d *Nashes Duchess* 10th 16227 by Gilslake Soldier 3127.
 8668 III (#3)—HENRY MATTHEWS, Down Farm, Winterbourne, Bristol, for *Winterbourne Famous* 5530 born Sept 24, s *Clapcote Masterpiece* 5228, d *Fairfield Elgion* 12th 17531 by *Fairfield Famous* 3rd 4162.

Class 410.—Gloucestershire Old Spots Boars, born in 1925.

- 8675 I (#10)—F HAROLD TURNBULL, Lower House Farm, Llantwit Major, Cardiff, for *Llantwit Larry* 5520, born Jan 5, s *Llantwit Hero* 2nd 5347, d *Downside Lily* 16277 by *Downside Loyal* 4139.
 8670 II (#5)—BENNETT & HOWARD, Quarry Farm Thornbury Glos, for *Thornbury Baronet* 5514, born Jan 28, s *Eastcote Roger* 5393, d *Thornbury Bar None* 15783 by *Ashton Bloomer* 1741.
 8668 III (#3)—JAMES D BEAK, Malden Bradley, Bath, for *Malden Bradley Tip Top* 2nd 5515, born Jan 2, s *Ashton Dapper* 4627, d *Malden Bradley Barmald* 2nd 14641 by *Malden Bradley Champion* 1st 3858.
 8671 R N—SHERRIFF & SONS, Lemsford, Hatfield, for *Nashes Duke* 6th.

Class 411.—Gloucestershire Old Spots Breeding Sows, born in or before 1923.

- 8677 I (#10)—BENNETT & HOWARD, Quarry Farm, Thornbury, Glos, for *Thornbury Bar None* 15783, born July 24, 1922, farrowed Jan 28, s *Ashton Bloomer* 1741, d *Thornbury Barmald* 7851 by Gilslake Admiral 907.
 8681 II (#5)—ROBERT JAMES MUIR WILSON, Windle Grange, St Helens, for *Crank Pride's Best* 17618, born Jan 20, 1923, farrowed Jan 4, s *Windrush Major* 4309, d *Crank Pride* 15035 by *Falland Victory* 900.
 8680 III (#3)—SHERRIFF & SONS, Lemsford, Hatfield, for *Nashes Duchess* 13th 16230, born Aug 8 1922, farrowed Jan 18 s *Huntingford Polemarsh* 4210, d *Nashes Duchess* 1st 9036 by *Harlequin of Hollywood* Fower 911.
 8679 R N—GEORGE CARTER OLIVER, The Elms, Horley, for *Hartland Diana*.

Class 412.—Gloucestershire Old Spots Sows, born in 1924, before July 1.

- 8683 I (#10, Champion, & Champion *)—BENNETT & HOWARD, Quarry Farm, Thornbury, Glos, for *Thornbury Bar Two* λ 228, born Jan 2, s *Ayot Page* 5069, d *Thornbury Bar None* 15783 by *Ashton Bloomer* 1741.
 8686 II (#5)—F HAROLD TURNBULL, Lower House Farm, Llantwit Major, Cardiff, for *Llantwit Rebecca* λ 286, born Jan 31, s *Holmwood Dandy* 5245, d *Llantwit Ruth* 17499 by *Llantwit Boy* 4861.
 8682 III (#3)—JAMES D BEAK, Malden Bradley, Bath, for *Malden Bradley Maid* 13th X 492, born April 8 s *Ashton Dapper* 4627, d *Malden Bradley Barmud* 3rd 14642 by *Malden Bradley Champion* 1st 3858.
 8684 R N—SHERRIFF & SONS, Lemsford, Hatfield, for *Nashes Duchess* 18th 237 born Jan 18, s Dorset Diver 4401, d *Nashes Duchess* 9th 16226 by Gilslake Soldier 3127.

Class 413.—Gloucestershire Old Spots Sows, born in 1924, on or after July 1.

- 8687 I (#10, & R N for Champion *)—JAMES D BEAK, Malden Bradley, Bath, for *Malden Bradley Maid* 9th, born Aug 11, s *Clapcote Madoc* 5413, d *Malden Bradley Maid* 3rd 17492 by *Ashton Dapper* 4627.
 8689 II (#5)—SHERRIFF & SONS, Lemsford, Hatfield, for *Nashes Duchess* 25th X 495, born July 5, s Dorset Diver 4401, d *Nashes Duchess* 13th 16230 by Huntingford Polemarsh 4210.
 8690 III (#3)—SHERRIFF & SONS, for *Nashes Duchess* 30th X 523, born Oct 27, s Ayot Popgun 5405, d *Nashes Duchess* 10th 16227 by Gilslake Soldier 3127.
 8692 R N—F HAROLD TURNBULL, Lower House Farm, Llantwit Major, Cardiff, for *Llantwit Enid*.

Class 414.—Two Gloucestershire Old Spots Sows, born in 1925.

- 8695 I (#10)—BENNETT & HOWARD, Quarry Farm, Thornbury, Glos, for *Thornbury Baroness* X 459 and *Thornbury Bargain* X 490 born Jan 28, s *Eastcote Roger* 5393, d *Thornbury Bar None* 15783 by *Ashton Bloomer* 1741.
 8693 II (#5)—JAMES D BEAK, Malden Bradley, Bath, for *Malden Bradley Maid* 14th X 493 and *Malden Bradley Maid* 15th X 494, born Jan 2, s *Ashton Dapper* 4627, d *Malden Bradley Barmald* 2nd 14641 by *Malden Bradley Champion* 1st 3858.
 8698 III (#3)—F HAROLD TURNBULL, Lower House Farm, Llantwit Major, Cardiff, for *Llantwit Juno* X 507 and *Llantwit Jane* X 508, born Jan 1, s *Llantwit Ben* 5412, d *Llantwit Jill* 16900 by *Netherton Beltane* 9998.
 8696 R N—SHERRIFF & SONS, Lemsford, Hatfield, for *Nashes Blossom* 22nd X 526 and *Nashes Blossom* 23rd X 527, born March 16, s Dorset Diver 4401, d *Nashes Blossom* 15th 17229 by *Ayot Premier* 4871.

¹ Prizes given by the Gloucestershire Old Spots Pig Society

* Silver Challenge Cup, value Forty Guinea, given through the Gloucestershire Old Spots Pig Society, for the best Boar or Sow in Classes 407 to 413

* Silver Challenge Cup, value Twenty Guinea, given through the Gloucestershire Old Spots Pig Society, for the best Sow in Classes 411 to 413.

Lincolnshire Curly-Coated.

Class 415.—Lincolnshire Curly-Coated Boars, born in or before 1923.

- 3701 I. (£10, & R. N. for Champion.)—F. J. CAUDWELL, Manor House, Sibsey, Boston, for **Bold Prince** 2nd 4043 (T. N. 133), born Jan. 20, 1921, bred by W. Abbott, Swaton, Billingborough; s. Ponton Prince 4103, d. Bold Evolution 12366 by Carrington Grange Evolution 2nd 1389.
- 3703 II. (£5.)—WILLIAM TODD, Little Ponton Grange, Grantham, for **Midville R.** 2nd 4493 (T. N. 197), born May 1921, bred by I. J. Caudwell, Sibsey, Boston; s. Carrington Grange Majestic 1st 4281, d. Midville Beauty 28th 12062 by Burton Lass 4185.
- 3702 III. (£3.)—GEORGE FRER, Deeping St. Nicholas, Spalding, for **Toynton Hero** 4th 4983 (T. N. 45), born May 10, 1923, bred by A. E. Alls, Toynton, Spilsby; s. Holmes Hero 6th 4689, d. Toynton Queen 3rd 12872 by Ponton Forerunner 4535.

*Class 416.—Lincolnshire Curly-Coated Boars, born in 1924.**

- 3707 I. (£10, & Champion.)—GEORGE FRER, Deeping St. Nicholas, Spalding, for **Pinchbeck Messenger Boy** (T. N. 44), born Jan. 24, bred by J. H. Holmes, Pinchbeck; s. Deeping Ash 4741, d. Bold Princess 4th 12504 by Ponton Prince 4105.
- 3705 II. (£5.)—FREDERICK E. BOWSER, Wigtoft, Boston, for **Wigtoft Baldwin** 8th (T. N. 979), born Jan. 5; s. Holmes Hero 5th 4687, d. Wigtoft Helen 3rd 12154 by Carrington Grange Mascot 2nd 4287.
- 3706 III. (£3.)—F. J. CAUDWELL, Manor House, Sibsey, Boston, for **Midville Royalist** 5107 (T. N. 107), born Jan. 7; s. Wigtoft Baldwin 3rd 4865, d. Midville Iris 7th 12958 by Bold Prince 2nd 4043.
- 3704 IV. (£2.)—WILLIAM ABBOTT, Swaton, Billingborough, for **Bold Prince** 3rd 5151 (T. N. 1, 4), born Jan. 10; s. Kingston Bold 4713, d. Bold Princess 1st 12504 by Ponton Prince 4105.

Class 417.—Lincolnshire Curly-Coated Boars, born in 1925.

- 3710 I. (£10.)—FREDERICK E. BOWSER, Wigtoft, Boston, for boar (T. N. 217), born Jan. 7; s. Holmes Hero 5th 4687, d. Wigtoft Majority 2nd 12700 by Wigtoft Leader 3rd 4575.
- 3709 II. (£5.)—FREDERICK E. BOWSER, for boar (T. N. 216), born Jan. 7; s. Holmes Hero 5th 4687, d. Wigtoft Majority 2nd 12700 by Wigtoft Leader 3rd 4575.
- 3711 III. (£3.)—HAROLD H. BOWSER, The Holmes, Kirton Holme, Boston, for **Holmes Hero** 33rd (T. N. 50), born Jan. 5, s. Wigtoft Majestic 6th 4635, d. Holmes Pride 30th 12778 by Wigtoft Leader 3rd 4575.
- 3708 R. N.—WILLIAM ABBOTT, Swaton, Billingborough.

Class 418.—Lincolnshire Curly-Coated Breeding Sows, born in or before 1923.

- 3715 I. (£10, & Champion.)—HAROLD H. BOWSER, The Holmes, Kirton Holme, Boston, for **Holmes Pride** 26th 12770 (T. N. 26), born Jan. 4, 1923, farrowed Jan. 18; s. Wigtoft Leader 3rd 4575, d. Holmes Pride 5th 12352 by Caythorpe Bob 4487.
- 3713 II. (£5.)—WILLIAM ABBOTT, Swaton, Billingborough, for **Bold Cambridge** 2nd 12510 (T. N. 6, 2), born Jan. 1922, farrowed Jan. 4, s. Bold Dran 2nd 4639, d. Bold Evolution 1st 12366 by Lafford 19th 3895.
- 3714 III. (£3.)—FREDERICK E. BOWSER, Wigtoft, Boston, for **Wigtoft Mabel** 1st 12764 (T. N. 925), born Feb. 1, 1923, farrowed Jan. 6; s. Holmes Hero 5th 4687, d. Wigtoft Heroine 3rd 12158 by Carrington Grange Mascot 2nd 4287.
- 3718 R. N.—GEORGE FRER, Deeping St. Nicholas, Spalding, for **Deeping Wensor** 1st.

Class 419.—Lincolnshire Curly-Coated Sows, born in 1924.

- 3719 I. (£10, & R. N. for Champion.)—FREDERICK E. BOWSER, Wigtoft, Boston, for **Wigtoft Minnie** 6th (T. N. 971), born Jan. 5; s. Midville Bob 8th 4803, d. Minnie 1st 12852 by Holmes Hero 5th 4687.
- 3721 II. (£5.)—F. J. CAUDWELL, Manor House, Sibsey, Boston, for **Midville Jenny** (T. N. 114), born Jan. 6; s. Bold Prince 2nd 4043, d. Midville Madam 4th 12408 by Carrington Grange Majestic 4281.
- 3720 III. (£3.)—HAROLD H. BOWSER, The Holmes, Kirton Holme, Boston, for **Holmes Pride** 38th 12946 (T. N. 38), born Jan. 3; s. Wigtoft Majestic 6th 4635, d. Holmes Pride 26th 12770 by Wigtoft Leader 3rd 4575.
- 3722 R. N.—GEORGE FRER, Deeping St. Nicholas, Spalding, for **Deeping Kirton** 4th.

Class 420.—Two Lincolnshire Curly-Coated Sows, born in 1925.

- 3728 I. (£10.)—GEORGE FRER, Deeping St. Nicholas, Spalding, for **Deeping Kirton** 9th (T. N. 41) and **Deeping Kirton** 10th (T. N. 42), born Jan. 10, s. Toynton Hero 4th 4983, d. Deeping Kirton 2nd by Gainsborough Deeping 4317.

* Champion Prize of £5 5s, given by the Lincolnshire Curly-Coated Pig Breeders' Association, for the best Boar in Classes 415 to 417.

* Prizes, except Fourth, given by the Lincolnshire Curly-Coated Pig Breeders' Association.

* Champion Prize of £5 5s, given by the Lincolnshire Curly-Coated Pig Breeders' Association, for the best Sow in Classes 418 and 419.

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- 3726 II. (#5)—HAROLD H BOWSER, The Holmes, Kirton Holme, Boston, for *Holmes Pride 42nd* (1 N 42), and *Holmes Pride 43rd* (1 N 43), born Jan 5, s Wigtoft Majestic 6th 4635 d Holmes Pride 30th 12778 by Fishtoft Leader 3rd 4575
 3727 III. (#3)—HAROLD H BOWSER, for *Holmes Pride 44th* (1 N 44) and *Holmes Pride 45th* (1 N 45), born Jan 5, s Wigtoft Majestic 6th 4635, d Holmes Pride 30th 12778 by Fishtoft Leader 3rd 4575
 3725 R N—FREDERICK L BOWSER, Wigtoft, Boston

Cumberland.

Class 421.—Cumberland Boars, born in or before 1923

- 3730 I. (#10)—JOHN S JORDAN, Bowston, Kendal, for *Bleatarn Excelnor 4473* (T N, R O V, L 1), born Jan 20, 192 bred by Messrs Routledge, Bleatarn Crofts (Crosby on Lden, Carlisle, s Orton Squire 1831, d Bleatarn Prince 3652 by Viscount Grey 1266
 3734 II. (#5)—J B SMALLLY, Birkby Hall, Carlisle in Cartmel Tancs for *Stackhouse Monarch 5805* (T N, S M I, L 14), born Aug 4, 1923, s Southley Gay Lord 3959, d Southley Sumner Rose 5541 by Royal Fortune 3023
 3731 III. (#3)—JOHN S JORDAN, for *Premier of Blackcoombe 5831* (T N, T B A, L '81), born April 2, 1923, bred by A H Fox Brockbank, Kirksanton, Silcroft, s Southley Golden Gain 3958, d Bowston 1my 4192 by Philip of Fauld 1834

Class 422.—Cumberland Boars, born in 1924¹

- 3736 I. (#10, & Champion *)—JOHN S JORDAN, Bowston, Kendal for *Bowston Financier 5750* (1 N, J O R, L 17), born Jan 9, s Bowston Enterprise 4485, d Bowston Snowdrop 5255 by Philip of Fauld 1834
 3735 II. (#5)—FRANCIS JOHN BELL, Yew Tree Villa, Thomas Close, Calthwaite, Carlisle, for *Aene of Moorthwaite 5726* (1 N, M G U, F 11), born Jan 31, bred by Matthew McGough, Moorthwaite, W.L., on Southley Gay Lord 3956, d Silver Suse 4254 by Jupiter 1786
 3739 III. (#3) JOHN STILL M R C V S, Southley Wigton for *Southley Cup Bearer 5858* (1 N, S L J, L 19), born Jan 25, s Lord Long 4647, d Southley Bloom 2693 by Tristram Shandy 429
 3737 R N—FRANK MORTIMER, Golden Grove, Llanasa, Holywell for *Golden Fashion*.

Class 423.—Cumberland Boars, born in 1925

- 3744 I. (#10, & R N for Champion *)—JOHN S JORDAN, Bowston, Kendal for *Bowston General* (1 N, J O R, L 14), born Jan 16, s Bowston Model 4490, d Barclose Orphan Girl 3452 by Pilton Hight 1242
 3746 II. (#5)—JOHN S JORDAN, for *Bowston Gerald* (T N, J O R, G 50), born March 14, s Bowston Financier 4750, d Bowston Eve 6080 by Southley Golden Gain 3958
 3747 III. (#3)—JOHN STILL M R C V S, Southley, Wigton, for *Southley Hover-a-Blink* (1 N, S L J, G 12), born Jan 15, s Southley Gay Lord 3956, d Southley Soubriquet 4368 by Gold Mine 1768
 3741 R N—MRS CARLETON COWPER, Carleton Hall, Penrith, for *Eamont Esther's Heir*.

Class 424.—Cumberland Breeding Sows, born in or before 1923.

- 3751 I. (#10, & Champion *)—JOHN S JORDAN, Bowston, Kendal for *Janet 2nd 4169* (T N, C 8), born March 5, 1921, farrowed Feb 12 bred by J B Threlkeld Ashes, Wigton, s Squire of Aikton 1262 d Suetta of Aikton 1294 by Prince Thomas of Aikton 409
 3752 II. (#5, & R N for Champion *)—JOHN S JORDAN, for *Witch of Ashes 4400* (1 N, L K D, C 19), born Aug 15, 1921 farrowed March 6, bred by J B Threlkeld, Ashes, Wigton, s Squire of Aikton 1262, d Witch of Aikton 1294 by Prince Thomas of Aikton House 409
 3753 III. (#3)—JOHN STILL M R C V S, Southley, Wigton for *Southley Soubriquet 4368* (T N, S L J, D 14), born Jan 28, 1922, farrowed Jan 15, s Gold Mine 1768, d Southley Bloom 2693 by Tristram Shandy 429
 3750 R N—JOHN S JORDAN, for *Bowston Jewel Girl*

Class 425.—Cumberland Sows, born in 1924

- 3760 I. (#10)—JOHN S JORDAN, Bowston, Kendal, for *Bowston Folly 6088* (T N, J O R, F 30), born Jan 20, s Bowston Enterprise 4485, d Janet 2nd 4189 by Squire of Aikton 1262
 3757 II. (#5)—MRS CARLETON COWPER, Carleton Hall, Penrith, for *Eamont Diana* (T N, C 1, C 1 8) born Jan 21, s Aikton House Iavourite 4450, d Eamont Esther 3204 by Barclose Iavourite 1178
 3765 III. (#3)—JOHN STILL, M R C V S, Southley, Wigton, for *Southley Sonny Sue 6279* (T N, S L J, L 12), born Jan 21, s Royal Fortune 3023, d Consett 2nd 4369 by Lord Bow 146 1808
 3764 IV. (#2)—JOHN STILL M R C V S, for *Southley Melody 6283* (T N, S L J, F 22), born Jan 25, s Lord Long 4647, d Southley Bloom 2693 by Tristram Shandy 429

¹ Prizes given by the Cumberland Pig Breeders' Association

* Champion Prize of £5, given by the Cumberland Pig Breeders' Association, for the best Boar in Classes 421 to 423

* Champion Prize of £5, given by the Cumberland Pig Breeders' Association for the best Sow in Classes 424 and 425.

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3761 **R. N.**—JOHN S JORDAN, for Woodside Sonny (T N, B W W, I 9), born March 7, bred by W Bainbridge & Son, Woodside Farm, Temple Sowerby, s Bleatarn Excelsior 4473, d Lizzie of Woodside 4817 by Paul of Scales Hall 3006

Class 428.—Two Cumberland Sows, born in 1925

3766 **I** (£10)—JOHN S JORDAN, Bowston, Kendal, for Bowston Graceful (T N G 10) and Bowston Gracious Gift (I N G 21), born Jan 16, s Bowston Model 4490 d Pardiose Orphan Girl 3452 by Parton Height 1242

3767 **II** (£5)—JOHN STEPHEN M R C V S, Southley, Wigton for sows (T N S L I G 8 and 9), born Jan 15, s Southley Gay Lord 3956, d Southley bouiquet 3468 by Gold Mine 1768

3768 **III** (£3)—JOHN STEPHEN M R C V S, for sows (T N S I J, G 13 and 16), born Jan 30 s Royal Fortune 3023, d Southley Bloom 2693 by Tinsam Shandy 429

Wessex Saddlebacks.

Class 427.—Wessex Saddleback Boars, born in or before 1923

3772 **I** (£10, & **R N** for Champion ¹)—A J KIRBY, Whitechurch, Ross on Wye, for Offa Hero 1st, born Jan 2, 1923, bred by S White, Hitchin, s Offa Imperor 1170, d Offa Agatha 5th by Kingswolden Monument 638

3773 **II** (£5)—F L MARTIN, Ashe Warren, Overton Hants, for Ashe Plant 2nd 650, born Jan 29, 1921, s Ashe Plant, 72, d Aer Girdle 438 by Aer Kingbird 9

3770 **III** (£3)—ALFRED J BUTLER, Bromham House 1 um (Huntingham for Godalming Victor 1669, born July 14, 1922, bred by A Freeland, Lucley Farm, Godalming, s Ashe Mac 2nd 680, d New Road Queen 1773

3774 **IV** (£2)—DOLPHIN SMITH, Mackrey Ltd, Harpenden for Harpenden True Type 1404 born Aug 3, 1922 s Norman King Offa 219 d Romsey True Type 930

3775 **R. N.**—DOUGLAS VICKERS, Temple Dinsley, Hitchin, for Oakley Prior
H. C—3771 **C**—3777

Class 428.—Wessex Saddleback Boars, born in 1924, before July 1st

3780 **I** (£10, Champion, ¹ & **R N** for Champion ¹)—H G LAKIN, Pipers Hall, Iermington for Pipers Oberon 2441, born March 2, s Sheffield Shackleton 81, d Pipers Litanis 2975 by Lastington Joker 277

3779 **II** (£5)—DR WILLIAM H FORSHAW, Slythhurst Twh l, Guildford for Slythhurst Bar None 2336 born Jan 2, s Norman King Offa 219, d Slythhurst Bracken 4938 by Ashe Mac 2nd 680

3781 **III** (£3)—SIR ALFRED MOND BART, M P Melchet Court, Romsey, Hants for Melchet Premier 2452, born May 21, s Melchet Stephen 6th 1698, d Hemyock Namesake 7717 by Duke of Hemyock 1032

3783 **R N**—R B TAYLOR & SONS, Hendford Lodge, Yeovil, for Sockhill Tempest.

Class 429.—Wessex Saddleback Boars, born in 1924, on or after July 1

3784 **I** (£10)—DR WILLIAM H FORSHAW, Slythhurst, Twhurst, Guildford, for Bard of Slythhurst 2615, born Dec 16, bred by Mrs Lillian Walker Slythhurst Surrey, s Slythhurst Bar None 2336, d Shillingier Music 5578 by Slythhurst Royal Oak 934

3785 **II** (£5)—H H HARRIS, New Farm Bedford Delford, Worcester for Bedford King Norman 2605 born July 13, s Bedford Richard 1960, d Janet of Bedford 4961 by Birtsmorton Down 950

3786 **III** (£3)—T L MARTIN, Ashe Warren, Overton Hants for Ashe Bonny Boy 2603, born Sept 2, s Massell Nut 1672, d Ashe Lassie 1st 10502 by Ashe Major 1219

Class 430.—Wessex Saddleback Boars, born in 1925

3798 **I** (£10)—STANLEY WHITE Hammond End, Harpenden for Offa Champion Boy, born Jan 5 s Offa Mac 1st 1913, d Offa Monika 5032 by Offa Egbert 696

3799 **II** (£5)—STANLEY WHITE for Offa King Norman, born Jan 5, s Offa Mac 1st 1913, d Pride of Ash 2nd 2014 by Kifield First 42

3796 **III** (£3)—DOUGLAS VICKERS, Temple Dinsley, Hitchin, for Preston Adnan, born Jan 25 s Oakley Prior 1678 d Offley Allison 8574 by Offa Dunstan 695

3793 **IV** (£2)—H G LAKIN, Pipers Hall, Leamington for Pipers Benedick 2613, born Jan 6, s Eastington Pagan 1838, d Pipers Helen 6617 by Sheffield Shackleton 815

3797 **R. N.**—DOUGLAS VICKERS, for Preston Sphinx 1st.

Class 431.—Wessex Saddleback Breeding Sows, born in or before 1923.

3803 **I** (£10, Champion, ¹ & Champion ¹)—A GIFFLARD Tinsley Farm, Godalming, for Godalming Eugene 6468 born June 19, 1922, farrowed Jan 26, s Ashe Mac 2nd 680, d Empress Eugenie 1103

¹ Champion Gold Medal, value £5 5s, given by the Wessex Saddleback Pig Society, for the best Boar in Classes 427 to 430

² Prizes, except Fourth and Fifth, given by the Wessex Saddleback Pig Society

³ Silver Challenge Cup, value Thirty Guinea, given by the Wessex Saddleback Pig Society, for the best Boar or Sow in Classes 427 to 433

⁴ Champion Gold Medal, value £5 5s, given by the Wessex Saddleback Pig Society, for the best Sow in Classes 431 to 433

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- 3804 **II. (#5).**—A. FREELAND, for Godalming Mollie 5491, born March 6, 1922, farrowed Jan. 19; s. Ashe Mac 2nd 680, d. Easton Scout 526 by Melchet Cooper 2
- 3802 **III. (#3).**—DR. WILLIAM H. FORSHAW, Slythehurst, Ewhurst, Guildford, for Echo of Slythehurst 9391, born Aug. 4, 1923, farrowed Jan. 7, bred by A. B. Williams, Ewhurst, Guildford; s. Slythehurst Forest King 1330, d. Godalming Eclipse 5283 by Oakley Tuesday 618
- 3814 **IV. (#2).**—DOUGLAS VICKERS, Temple Dinsley, Hitchin, for Harpenden Vanity 2nd 8531, born Feb. 1, 1923, farrowed Jan. 6, bred by Dolphin Smith, Harpenden; s. Brooke Prince 625, d. Harpenden Vain 3531 by Buscombe Hero 320
- 3806 **V. (#1).**—H. G. LAKIN, Pipers Hill, Leamington, for Pipers Perdita 6897, born Sept. 27, 1922, farrowed Jan. 1, s. Sheffield Shackleton 815, d. Pipers Titania 2975 by Lastington Joker 277
- 3809 **R. N.**—T. L. MARTIN, Ashe Warren, Overton, Hants, for Noreen of Northington. H.C.—3810 C.—3813.

Class 432.—Wessex Saddleback Sows, born in 1924, before July 1.¹

- 3825 **I. (#10).**—T. L. MARTIN, Ashe Warren, Overton, Hants, for Ashe Noreen 11676, born Jan. 28; s. Ashe Major 1219, d. Noreen of Northington 8644 by Ashe Plant 72
- 3829 **II. (#5).**—DOUGLAS VICKERS, Temple Dinsley, Hitchin, for Preston Dulce 2nd 11153, born Jan. 3; s. Royston Cicero 1530, d. Offa Noreen 4845 by Offa Edmund 471
- 3830 **III. (#3).**—STANLEY WHITE, Hammond 1st, Harpenden, for Offa Eleanor 1st 11855, born Feb. 7; s. Offa Mac 1st 1913, d. Offa Bosana 1617
- 3828 **IV. (#2).**—R. B. TAYLOR & SONS, Hendford Lodge, Yeovil, for Sockhill Snow White 4th 11336, born Jan. 17, s. Lastington Rowan 735, d. Sockhill Snow White 5820 by Sockhill Pendarus 860
- 3819 **V. (#1).**—CLAUDE CORAM, Hartnolls, Tiverton, for Hartnolls Blanche 1st 12110, born Jan. 17; s. Colworth Prince 1616, d. Westbury Blanche 11th 5407 by Godalming Duke 581
- 3823 **R. N.**—SIR MICHAEL LAKIN, BART, The Cliff, Warwick, for Pipers Dinah.

Class 433.—Wessex Saddleback Sows, born in 1924, on or after July 1.¹

- 3833 **I. (#10, & R. N. for Champion *).**—H. G. LAKIN, Pipers Hill, Leamington, for Pipers Marian 12109, born July 21, s. Lastington Pagan 1838, d. Pipers Viola 5620 by Sheffield Shackleton 815
- 3835 **II. (#5).**—T. L. MARTIN, Ashe Warren, Overton, Hants, for Ashe Lassie 4th 12265, born Sept. 2; s. Muswell Nut 1672, d. Ashe Lassie 1st 10502 by Ashe Major 1219
- 3839 **III. (#3).**—DOLPHIN SMITH, Mackrey 1st, Harpenden, for Welwyn Pearl 4th 11698, born July 18, bred by George Baron, Welwyn, s. Brandon Admiral 1461, d. Ayot Emily 4th 7084
- 3832 **IV. (#2).**—DR. WILLIAM H. FORSHAW, Slythehurst, Lwhurst, Guildford, for Slythehurst Charm 11805, born July 31; s. Kingsland Charie 1812, d. Slythehurst Bracken 4938 by Ashe Mac 2nd 680
- 3838 **R. N.**—MRS. ARTHUR SHRESTON, Otley Hall, Ipswich, for Otley Lohan.

Class 434.—Two Wessex Saddleback Sows, born in 1925.

- 3847 **I. (#10).**—STANLEY WHITE, Hammond 1st, Harpenden, for Offa Queen Ann 1st and Offa Queen Ann 2nd, born Jan. 5; s. Offa Mac 1st 1913, d. Offa Monica 5032 by Offa Egbert 696
- 3843 **II. (#5).**—H. H. HARRIS, New Farm, Besford, Defford, Worcester, for Besford Rose 11th and 12th, born Jan. 10, s. Shillinglee Swell 2002, d. Besford Rose 6930 by Lastington Gambler 584
- 3846 **III. (#3).**—DOUGLAS VICKERS, Temple Dinsley, Hitchin, for Preston Vain and Preston Vain 2nd, born Jan. 6; s. Norman King Offa 219, d. Harpenden Vanity 2nd 8531 by Brook Prince 625
- 3844 **R. N.**—H. G. LAKIN, Pipers Hill, Leamington, for Pipers Mary and Pipers May. H. C.—3841. C.—3845.

Essex.

Class 435.—Essex Boars, born in or before 1923.

- 3849 **I. (#10).**—CHARLES COUSINS, Jenkins, Stisted, Braintree, for Peace Goliath 1553 (T.N. 5876), born Jan. 8, 1923; s. Peace Field Marshal 977, d. Walden Treasure 2nd 3920
- 3846 **II. (#5).**—A. J. COUSINS, Cressing Lodge, Braintree, for Cressing Angus 4th 1985 (T.N. 7525), born July 12, 1923; s. Tillyfour Angus 811, d. Cressing Duchess 8th 5924 by Cressing Major 269
- 3852 **III. (#3).**—J. REGINALD TINNEY, Rickling, Newport, Essex, for Durrington Vicer 1831 (T.N. 6894), born June 30, 1923, bred by Sir W. H. N. Goschen, K.B.E., Durrington House, Harlow; s. Chelmer Archbishop 789, d. Dovills Pride 5382 by Easton Duke 3rd 275
- 3850 **R. N.**—A. T. GREENSLADE, Little Walden Park, Saffron Walden, for Walden Reserve 2nd.

¹ Prizes, except Fourth and Fifth, for

* Champion Gold Medal, value 5s., given by the Wessex Saddleback Pig Society, for the best Sow in Classes 431 to 433.

Class 436.—Essex Boars, born in 1924.

- 3855 I (#10, & R N for Champion ¹)—KEMSLEY & KEMSLEY, Great Wakering, Essex, for Barling Woodman 2405 (T N 8710), born April 14, s Woolmer Soldier 1497, d Barling Ruby 6646 by Chelmer Cornsack 745
 3853 II (#5)—A J COUSINS, Cressing Lodge, Braintree, for Cressing Claudius 4th 2467 (T N 3693), born June 4, s Fryerning Claudius 6th 1529, d Cressing Duchess 36th 10252 by Tillyfour Angus 811
 3858 III (#3)—J REGINALD TINNEY, Rickling, Newport, Essex, for Rickling Reigrier 9th 2527 (T N 9166), born May 11, s Barnston Reigrier 771, d Rickling Treasure 4th 6876 by Walden Champion 843
 3856 R N—R BROWNING SMITH, The Brook, Great Tey, Kelvedon, for Tewes Conqueror. H C—3854

Class 437.—Essex Boars, born in 1925.

- 3861 I (#10)—A J COUSINS, Cressing Lodge, Braintree, for boar, born Jan 10, s Fryerning Claudius 6th 1529, d Cressing Pickle 2nd 11070 by Ramsey Powerful 1347
 3864 II (#5)—J REGINALD TINNEY, Rickling, Newport, Essex, for Thorley Jay, born Jan 6, bred by J Tinney & Son, Thorley Hall, Bishop's Stortford, s Jupiter 1357, d Thorley Blossom 5593, by Premier of Thorley 120
 3863 III (#3)—W LAWRENCE TAYLOR, Gallywood Chelmsford for Gallywood Emperor 5th, born Jan 17, s Walden Generosity 993, d Gallywood Amy 16th 11536 by Fryerning Farmer 617
 3860 R N—H S ASHTON, Trueloves, Ingatstone, for Trueloves Admiral 18th.

Class 438.—Essex Breeding Sows, born in or before 1923.

- 3866 I (#10)—A J COUSINS, Cressing Lodge, Braintree, for Cressing Charity 11th 11086 (T N 1043), born Aug 6 1923, farrowed Jan 2, s Tillyfour Angus 811, d Cressing Charity 1358 by Peace Benjamin 83
 3871 II (#5)—J REGINALD TINNEY, Rickling, Newport, Essex, for Rickling Primrose 3rd 11420 (T N 7406), born June 27, 1923, farrowed Feb 2, s Barnston Reigrier 771, d Thorley Primrose 4th 5164 by Chelmsford Prince 245
 3868 III (#3)—KEMSLEY & KEMSLEY, Great Wakering, Essex, for Barling Matilda 10498 (T N 714), born July 2 1923 farrowed April 11, s Barling Sailor 1039, d Barling Flo 5552 by Chelmer Cornsack 745
 3867 R N—CHARLES COUSINS, Jenkins, Stisted, Braintree, f. Walden Thrifty 6th

Class 439.—Essex Sows, born in 1924 ²

- 3875 I (#10, & Champion ¹)—A J COUSINS, Cressing Lodge, Braintree, for Cressing Daphne 13th 12552 (T N 8020), born Jan 4, s Tillyfour Angus 811, d Cressing Daphne 5th 5916 by Cressing Majestic 267
 3882 II (#5)—J REGINALD TINNEY, Rickling, Newport, Essex, for Thorley Tamsie (T N 9443) born July 29 bred by J Tinney & Son, Thorley Hall Bishop's Stortford, s Howletts Major 1763 d Thorley Quince 8144 by Admiral 2nd of Thorley 1055
 3876 III (#3)—(HARRIS COUSINS) Jenkins Stisted Braintree, for Homage of Peace 13682 (T N 9020) born July 5 bred by J Cousins Great Leighs, Chelmsford, s Barling Corporal 1043, d Loez Hucliff 5956 by Porters Polygram 443
 3873 IV (#2)—ROBERT CHANIN, Tilty Hill Farm, Dutton Hill, Dunmow, for Tilty Lily (T N 9141) born July 3, s Cressing Duke 2nd 1353, d Tilty Lady by Margaretting Columbus 677
 3881 R N—J REGINALD TINNEY, for Thorley Selected. H C—3874 C—3872

Class 440.—Two Essex Sows, born in 1925

- 3883 I (#10)—H S ASHTON, Trueloves, Ingatstone, for Trueloves Greengage and Truelove Goldfinch, born Jan 2, s Cressing Major 3rd 1563, d Trueloves Princess 3624 by Barnston Claudius 1st 7
 3886 II (#5)—R BROWNING SMITH, The Brook Great Tey, Kelvedon, for Brook Superbus 14th 9801 and 15th 9802, born Jan 4, d Brook Superbus 2nd 2328 by Brook Masterpiece 1613
 3885 III (#3)—R BROWNING SMITH, for Brook Oak 7th 9803 and 8th 9804, born Jan 1, d Brook Ayah 2nd 4382 by Brook Masterpiece 1613
 3884 R N.—CHARLES COUSINS, Jenkins, Stisted, Braintree.

Long White Lop-Eared.

Class 441.—Long White Lop-Eared Boars, born in or before 1924

- 3887 I (#10)—H L BENNETT, Hawkenbury, Staplehurst, Kent, for Netherton Erie King 790 born Feb 16, 1924, bred by S Ward, Netherton House, Yelverton, Devon, s Anderton Consideration 244, d Netherton Linsie 593 by Quither General.

¹ Silver Champion Cup, value Ten Guineas, given by the Essex Pig Society, for the best Boar or Sow in Classes 435 to 439

² Prizes, except Fourth, given by the Essex Pig Society.

cxlviii *Awards of Live Stock Prizes at Chester, 1925.*

- 3891 II (25)—ALFRED A. PARTRIDGE, Mordref, Plympton, Devon, for Priory Mill Man 878, born May 24, 1924, s Forda Marvel 268, d Priory Mill Maid 1149 by Quither Masterpiece 122
 3890 III (23)—LOUIS ILLISCHMANN, Chetwode Manor, Buckingham, for Chetwode Commander, born Aug 7, 1924, s Chetwode Attraction 560, d Chetwode Alice 2051 by Circle Perfection 242
 3889 R N—LOUIS ILLISCHMANN, for Chetwode Gland.

Class 442.—*Long White Lop Eared Boars, born in 1925*¹

- 3838 I (210)—W. J. WELSHAK, Godwell, Ivybridge, Devon for Godwell Ben 934, born Jan 10, s Appleton Sultan 552, d Colwill Lobby 3205 by Harborton Premier 86
 3895 II (25)—WILLIAM HENRY NEAL, Yealmpstone Farm, Plympton, Devon, for Yealmpstone Ben 2nd Jst, born Jan 25, s Netherton Earl King, d Yealmpstone Princess 73 by Writler Bacon Lvy 38
 3896 III (23)—ALFRED A. PARTRIDGE, Mordref, Plympton, Devon, for Priory General 2nd, born Mar 15, s Forda Marvel 268, d Priory Princess 1213 by Ernie General 166
 3839 R N—STANLEY WHITE, Hammond End, Harpenden, for Offing Bar Nose

Class 443.—*Long White Lop Eared Breeding Sows, born in or before 1924.*

- 3903 I (210)—ALFRED A. PARTRIDGE, Mordref, Plympton, Devon, for Priory Lassie 823, born Sept 14 1922 farrowed Jan 3, s Ernie Masterpiece 122, d Lordlands Amiable 15 by Robinson Jumbo 20
 3904 II (25)—WILLIAM LILIAN SMITH, JUNR, Wenhaston Hall, Halesworth, Suffolk, for Yealmpstone Queen 71, born Dec 11 1917, farrowed Feb 15, bred by W. H. Neal, Lower Yealmpstone, Plympton, Devon
 3905 III (23)—H. I. BARNETT, Hawkenbury, Staplehurst, Kent, for Yealmpstone Progress 387, born Dec 21, 1923, farrowed March 10 bred by W. H. Neal Yealmpstone Farm, Plympton, Devon, s Harborton Premier 86, d Yealmpstone Primrose 4th 413 by Quither General 2
 3906 R N—STANLEY WHITE, Hammond End, Harpenden, for Godwell Sunstar.

Class 444.—*Two Long White Lop Eared Sows, born in 1925*¹

- 3908 I (210)—W. J. WELSHAK, Godwell, Ivybridge, Devon, for Godwell Beauty 1st 3391 and 2nd 3403, born Jan 26, s Appleton Sultan 552, d Colwill Bobby 3205 by Harborton Premier 86
 3907 II (25)—WILLIAM HENRY NEAL, Yealmpstone Farm, Plympton, Devon, for Yealmpstone Flower 390 and 401, born Jan 10, s Netherton Earl King, d Yealmpstone Flower 2nd by Circle Perfection 242
 3909 III (23)—STANLEY WHITE, Hammond End, Harpenden, for Offing Bonny Lass 1st and 2nd, born Jan 2, s Priory Jumbo, d Waddon Offing Anna 34th 1253 by Netherton October 110

Welsh.

Class 445.—*Welsh Boars, born in or before 1925*

- 3910 I (210)—CAPTAIN N. MILNE-HARROP, Gwersyllt Hill, Wrexham, for Gwersyllt Prince Elwyn 2nd, born Aug 1 1924, s Chelford Acorn King 1st 91, d Gwersyllt Catalina 3rd 41 by Tyssul Cwr 4
 3911 II (25)—I. C. MINGO, Haulfryn Home Farm, Abersoch, for boar, born Jan 18, 1925, bred by Captain N. Milne-Harrop Gwersyllt Hill, Wrexham, s Brigam Masterpiece 142, d Gwersyllt Duchess 4th 480 by Tyssul Cwr 4

Class 446.—*Welsh Breeding Sows, born in or before 1924*²

- 3912 I (210)—CAPTAIN N. MILNE-HARROP, Gwersyllt Hill, Wrexham, for Gwersyllt Barbara 210 born July 26, 1921, farrowed Jan 20, bred by James Evans, I fynonias Isaf, Blaenwau Whitland, S. Wales, s Ap Gronw 2, d Peggy Elwyn 13
 3914 II (25)—JOHN J. LYNCH, Glascoed Hall, Wrexham, for Glascoed Angela 221, born Aug 21 1921, farrowed Jan 2, bred by D. Evans, Giffach, Llangan, s Ap Gronw 2, d Alice Curig 14
 3915 III (23)—I. C. MINGO, Haulfryn Home Farm, Abersoch, for Gwersyllt Duchess 4th 480 born Aug 17 1923, farrowed Jan 18, bred by Captain N. Milne-Harrop, Gwersyllt Hill, Wrexham s Tyssul Cwr 4, d Giffach Cori 252 by Shan Tiger 17.
 3916 R N—CAPTAIN N. MILNE-HARROP, for Peggy Elwyn.

Class 447.—*Two Welsh Sows, born in 1925*²

- 3921 I (210)—CAPTAIN N. MILNE-HARROP, Gwersyllt Hill, Wrexham, for Gwersyllt Lady Elwyn 6th and 7th, born Jan 1, s Chelford Acorn King 1st 91, d Gwersyllt Bundle 209 by Ap Gronw 2

¹ Prizes given by the Long White Lop-Eared Pig Society

² Prizes given by the Welsh Pig Society.

- 3922 II (85)—F (MINOPRIO Haulfryn Home Farm Abersoch for *Haulfryn Mary* (T N , H 1) and *Haulfryn Jane* (1 N, H 2), born Jan 18 bred by Captain N Milne Harroff Gwersyllt Hill, Wrexham, s Brigam Masterpiece 142, d Gwersyllt Duchess 4th 480 by Tyssul Cawr 4
- 3919 III (83)—DINAM ESTATES COMPANY Llandinam Hall farm, Llandinam Mont, for sows, born Feb 13, s Masterpiece of Peniel d Dinam Actress by Gilfach (Linker
- 3918 E N—DAVID PERCIVAL BARNETT, Walterston, Llancafan Cowbridge, for *Walterston Perfection* and *Walterston Peaceful*

FARM AND DAIRY PRODUCE OF THE UNITED KINGDOM.

Butter.

Class 448—*Two Pounds of Fresh Butter, without any salt, made up in plain pounds, from the milk of Channel Island, Devon or South Devon Cattle and their crosses*

- 10 I (84)—MRS I R MILDON, Mead Down, Rackenford, Crediton
- 12 II (82)—THE MARQUIS OF NORTHAMPTON, D S O, Castle Ashby, Northants
- 2 III (81)—T R BOLITHO Trengwainton Penzance
- 7 IV (10s)—MRS M HEYWOOD, The Barton, Loxbeare Tiverton
- 15 V (8s)—MISS MURIEL M SHAW Coxwell Lodge, Faringdon
- 14 E N—D I PERNANT Nantlys St Asaph
- H C—3, 4, 11, 16

Class 449—*Two Pounds of Fresh Butter, without any salt, made up in plain pounds, from the milk of cattle of any breeds or cross other than those mentioned in Class 448*

- 33 I (84)—G SUMNER Stallbrook Farm Derrington Stafford
- 30 II (82)—THE MISSES ROBERTS Bwlch-y Maen Dolwyddelan North Wales
- 21 III (81)—MRS AMELIA COOKSON Primrose Hill Kelsall Chester
- 26 IV (10s)—MRS W F MUDD Ihoithwilt Darley Harrogate
- 31 V (8s)—MISS S H ROBINSON Red House Farm, Laverton Loftus, Yorks

Class 450—*Two Pounds of Fresh Butter, slightly salted, made up in plain pounds, from the milk of Channel Island, Devon or South Devon Cattle and their crosses*

- 43 I (84)—MRS L R MILDON Mead Down Rackenford Crediton
- 45 II (82)—THE MARQUIS OF NORTHAMPTON D S O, Castle Ashby Northants
- 42 III (81)—CAPTAIN N C LIVINGSTONE LEARMONTH Hifehead Magdalen Cillingham Dorset
- 40 IV (10s)—MRS M HEYWOOD, The Barton Loxbeare Tiverton
- 35 V (8s)—T R BOLITHO Trengwainton Penzance
- 48 E N—THE DUKE OF PORTLAND, K G, Welbeck Abbey Worksop
- H C—34 33 41 44

Class 451—*Two Pounds of Fresh Butter, slightly salted, made up in plain pounds, from the milk of cattle of any breed or cross other than those mentioned in Class 450*

- 65 I (84)—MRS R SPANN Daleford Lane, Sandiway Northwich
- 61 II (82)—THE MISSES ROBERTS Bwlch y Maen Dolwyddelan
- 63 III (81)—MISS S H ROBINSON, Red House Farm, Laverton, Loftus
- 60 IV (10s)—C H ROBERTS, Rhyd-y Bill Rhewl, Ruthin
- 54 V (8s)—MRS AMELIA COOKSON, Primrose Hill Kelsall Chester
- 62 E N—MRS J M ROBERTSON, Holly House farm, Mere, Knutsford
- H C—57, 66, 67

Class 452—*Three Pounds of Fresh Butter, slightly salted, made up in pounds in the most attractive marketable designs*

- 71 I (84)—MRS M HEYWOOD, The Barton, Loxbeare, Tiverton
- 72 II (82)—MRS L R MILDON, Mead Down, Rackenford, Crediton
- 77 III (81)—MRS M POOLEY, Haughton, Shifnal Salop
- 80 IV (10s)—MISS MURIEL M SHAW Coxwell Lodge Faringdon
- 75 V (8s)—THE MARQUIS OF NORTHAMPTON, D S O, Castle Ashby, Northants
- 73 E N—J PIERPONT MORGAN, Wall Hall, Aldenham, Watford
- H C—76

ol *Awards of Prizes for Produce at Chester, 1925.*

Class 453.—*Three Pounds of Fresh Butter, slightly salted, made up in pounds, and packed in non-returnable boxes for transmission by rail or parcel post.*

85 I. (24).—THE MARQUIS OF NORTHAMPTON, D S O, Castle Ashby, Northants.

85 II. (22).—MRS L. R. MILDON, Mead Down, Backinford, Crediton

82 III. (21).—T. B. BOLITHO, Trengwainton, Penzance

84 E. N.—MRS W. L. MUDD, Thornthwaite, Darley, Harrogate

Cheshire Cheese.¹

Made in 1925, except Class 460

Class 454.—*Three Cheshire Cheeses (Coloured), not less than 40 lb. each, made, owned and exhibited by any occupier of land exceeding 150 acres.*

142 I. (210, & Champion.²) CHARLES L. PARTON, Haughton Hall Farm, Tarporley

103 II. (28).—CHARLES A. G. CUMMINS, Gosland Green Farm, Bunbury, Tarporley

148 III. (26).—W. A. ROBINSON, Lgerton Hall, Malpas

90 IV. (24).—J. BASFORD, Bridgemere, Nantwich

153 V. (22).—GEORGE SUTTON, Pewitt Hall, Hunsterson, Nantwich

120 E. N.—OLIVER HESKETH, Cholmondeston, Winsford, Cheshire

H. C.—101, 139, 143, 160, 162 C.—21, 22, 123, 127, 131

Class 455.—*Three Cheshire Cheeses (Uncoloured), not less than 40 lb. each, made owned, and exhibited by any occupier of land exceeding 150 acres*

195 I. (210).—W. R. LEE, Lacon Hall, Wem, Salop

197 II. (28).—I. A. MOORE, The Grange, Checkley, Nantwich

188 III. (26).—C. I. HOSKIN, Weston Hall, Standon, Ledseshall, Staffs

189 IV. (24).—W. H. HOBSON, Woodhey Hall, Nantwich

198 V. (22).—W. E. MOORE, Baddley Farm, Nantwich

190 E. N.—IRVED HUNTBAUGH, Moor Hall, Aston, Nantwich

H. C.—168, 172, 177, 181, 192 C.—174, 175, 184, 187, 214

Class 456.—*Three Cheshire Cheeses (Coloured), not less than 40 lb. each, made, owned, and exhibited by any occupier of land exceeding 80 and not exceeding 150 acres.*

235 I. (210, & E. N. for Champion.³)—F. W. HESKETH, Firs Bank, Cholmondeston, Nantwich

219 II. (28).—H. T. BONELL, Dunhall Hall, Dunham Hill, Warrington

238 III. (26).—ALBERT HUGHES, Willington Cross, Milpas

254 IV. (24).—SAMUEL SUMNER, Wolveston Hall, Lacey, Whitchurch, Salop

237 V. (22).—JOHN HOULBROOKE, Church Farm, Hargrave, Chester

218 E. N.—THE FARM OF THE LARF. I. W. BOFFEY, Bridge Farm, Hunhall, Nantwich

H. C.—221, 225, 228, 244, 253 C.—229, 230, 231, 236, 245

Class 457.—*Three Cheshire Cheeses (Uncoloured), not less than 40 lb. each, made, owned, and exhibited by any occupier of land exceeding 80 and not exceeding 150 acres.*

293 I. (28).—JAMES WRESTON, Bell o' th' Hill, Tushingham, Whitchurch, Salop

271 II. (28).—JAMES EDWARDS, Ivy Ltd Farm, Half-Way House, Shrewsbury

289 III. (24).—PHILIP SUMNER, Ivy House, Frith, Wrenbury

276 IV. (22).—JOHN HOULBROOKE, Church Farm, Hargrave, Chester

272 V. (21).—JOHN FURBER, Broomhall, Nantwich

286 E. N.—GEORGE PLATT, Linton, Tarporley

H. C.—277, 280, 287, 294, 295 C.—263, 270, 275, 279, 290

Class 458.—*Three Cheshire Cheeses (Coloured), not less than 30 lb. each, made, owned, and exhibited by any occupier of land not exceeding 80 acres.*

308 I. (22, & Champion.²)—A. P. SADLER, Mount Pleasant, Newhall, Nantwich

310 II. (28).—H. VICKERS, Maes y Groc, Lacey, Whitchurch, Salop

296 III. (24).—R. H. BARNETT, Robinson's Corner Farm, Wistaston, Nantwich

313 IV. (22).—WILFRED WEST, Chesterton Farm, Ridley, Tarporley

302 V. (21).—THOMAS D. HUGHES, Spurstow, Tarporley

299 E. N.—SAMUEL DUTTON, Oak Farm, Haughton, Tarporley

H. C.—298, 300 C.—314

¹ £20 towards these Prizes were given by the Cheshire Cheese Federation, and £5 by the Chester Local Committee

² Champion Cup, value One Hundred Guineas, given by the members of the Cheshire Hunt, for the best exhibit of Cheshire Cheese in Classes 454 to 457. Open to occupiers residing within the limits of the country hunted over by the Cheshire Hounds

³ Champion Cup, value Fifty Guineas, given by the members of the Cheshire Hunt, for the best exhibit of Cheshire Cheese in Classes 458 and 459. Open to occupiers residing within the limits of the country hunted over by the Cheshire Hounds.

Awards of Prizes for Produce at Chester, 1925. oli

Class 459.—Three Cheshire Cheeses (Uncoloured), not less than 30 lb. each, made, owned, and exhibited by any occupier of land not exceeding 80 acres.

- 329 I. (£8, & R. N. for Champion.¹)—A. P. SADLER, Mount Pleasant, Newhall, Nantwich.
 332 II. (£8.)—WILFRED WAST, Chesterton Farm, Ridley, Tarporley.
 317 III. (£4.)—CHARLES BOFFEY, Corner Farm, Wattenhall, Winsford.
 331 IV. (£2.)—H. VICKERS, Maes-y Groes, Lloyd, Whitchurch, Salop.
 319 V. (£1.)—BEN EASTWOOD, Manor Farm, Hinton, Whitchurch, Salop.
 324 R. N.—RICHARD MADDOCK, Bay Tree Farm, Brington, Whitchurch, Salop.
 H. C.—322, 327. C.—325, 326.

Class 460.—Three Cheshire Cheeses (Coloured or Uncoloured), not less than 30 lb. each, made during the 1924 season.

- 340 I. (£15.)—W. H. HOBSON, Woodhey Hall, Nantwich.
 366 II. (£12.)—A. P. SADLER, Mount Pleasant, Newhall, Nantwich.
 375 III. (£8.)—CHARLES WEAVER, Goldsmith House, Burleydam, Whitchurch, Salop.
 362 IV. (£6.)—CHARLES B. PARTON, Haughton Hall Farm, Tarporley.
 373 V. (£4.)—JOHN VERNON, Barhill Farm, Tushingham, Whitchurch, Salop.
 369 R. N.—JOHN SMITH, Calvehall, Whitchurch, Salop.
 H. C.—342, 343, 346, 357, 378. C.—335, 341, 370, 371, 376.

Other Varieties of Cheese.

Made in 1925.

Class 461.—Two Lancashire Cheeses, not less than 40 lb. each.

- 381 III. (£2.)—WILLIAM DUCKWORTH, Ribby Hall Dairy, Kirkham.

Class 463.—Two Cheddar Cheeses, not less than 50 lb. each.

- 396 I. (£5.)—F. PORTCH, Leigh Farm, Wincanton.
 365 II. (£3.)—H. H. PICKFORD, Manor Farm, Patney, Devizes.
 394 III. (£2.)—L. G. NURSE & SONS, Wick Farm, Coxley, Wells, Somerset.
 392 IV. (10s.)—GEORGE MOORE, Lulby Farm, Polham, Wells, Somerset.
 393 V. (5s.)—MISS HILDA NAISH, Farncombe Farm, Douling, Expton Mallet.
 391 R. N.—GEORGE McDOWALL, South Botland, Dunwigg, Wigtonshire.

Class 464.—Two Cheddar Truckles.

- 409 I. (£5.)—JOHN TAYLOR, White House Farm, Lathcott Green, Alveston.
 405 II. (£3.)—MISS VERONICA NAISH, Farncombe Farm, Douling, Expton Mallet.
 407 III. (£2.)—F. PORTCH, Leigh Farm, Wincanton.
 410 IV. (10s.)—EDWARD WALTER, West Forest Farm, Gear Hill, Maiden Bradley.
 402 V. (5s.)—JAMES P. HUNTER, Castle Sinneness, Glenluce.
 406 R. N.—H. H. PICKFORD, Manor Farm, Patney, Devizes.

Class 465.—Two Stilton Cheeses.

- 416 I. (£5.)—LONG CLAWSON DAIRY, LTD, Long Clawson, Melton Mowbray.
 425 II. (£3.)—THE MESSRS F. and J. WEBSTER, Baxelbye, Melton Mowbray.
 420 III. (£2.)—STATHERN AND DISTRICT DAIRY, Stathern, Melton Mowbray.
 417 IV. (10s.)—J. M. NUTTALL & CO, LTD, Dove Dairy, Hartington, Buxton.
 415 V. (5s.)—HENRY KNIGHT & CO, The Cheese Dairy, Seagrave, Loughborough.
 422 R. N.—HENRY THOMPSON & SONS, LTD, Nether Broughton, Melton Mowbray.

Class 466.—Two Wensleydale Cheeses (Stilton shape).

- 428 I. (£5.)—MISS B. J. MUDD, Aldborough Dairy, Boroughbridge, Yorks.
 427 II. (£3.)—MISS RACHEL JAMES, Llancaoy, Usk, Mon.
 430 III. (£2.)—MISS M. M. SYKES, Linton Spring Dairy, Wetherby.
 429 R. N.—ALFRED BOWNTREE & SON, Coverham, Middleham, Yorks.

Class 467.—Two Leicestershire Cheeses.

- 433 I. (£5.)—HERBERT RICHARDSON, The Orchards, Cotesbach, Rugby.
 436 II. (£3.)—FRANCIS W. TOMLINSON, Home Farm, Ashby Parva, Rugby.
 431 III. (£2.)—JOHN HARRISON, Paulton, Rugby.
 432 R. N.—HENRY KNIGHT & CO, The Cheese Dairy, Seagrave, Loughborough.

Class 468.—Two Caerphilly Cheeses.

- 437 I. (£5.)—MRS. A. BLATCHFORD, Arundell Hotel, Lifton, Devon.
 441 II. (£3.)—MISS RACHEL JAMES, Llancaoy, Usk, Mon.
 439 III. (£2.)—COX & SONS, The Creamery, Haverfordwest.
 443 R. N.—CHARLES WOODWARD, Rookery Farm, Vole Mark, Highbridge.

¹ Champion Cup, value Fifty Guineas, given by the members of the Cheshire Hunt, for the best exhibit of Cheshire Cheese in Classes 458 and 459. Open to occupiers residing within the limits of the country hunted by the Cheshire Hounds.

olii *Awards of Prizes for Produce at Chester, 1925.*

Class 469.—Two Small Cheeses, not exceeding 6 lb each, of Cheddar or Cheshire character.

- 460 I (24)—MISS HILDA NAISH, Jarncombe Farm, Doulting, Shepton Mallet
 470 II (22)—EDWARD WATFEE, West Forest Farm Gear Hill, Malden Bradley.
 464 III (21)—H H PICKFORD, Manor Farm, Patney, Devizes
 467 IV (10s)—A P SADDLER, Mount Pleasant, Newhall, Nantwich
 465 V (5s)—J F FORTNAM, The Rudge Manor, Ashley, Market Drayton
 445 R. N.—MRS A BLATCHFORD, Arundell Hotel, Liffon, Devon

Class 470.—Two Small Cheeses, not exceeding 6 lb each, of Stilton or Wensleydale character

- 476 I (24)—J M NUTTALL & Co, LTD Dove Dairy, Hartington, Buxton
 475 II (22)—MISS B J MUDD, Aldborough Dairy, Boroughbridge, Yorks
 470 III (21)—FRED WEBSTER, Shoby Priory Melton Mowbray
 480 R. N.—THE MASSES M & J WEBSTER, Savelbe, Melton Mowbray

Class 471.—Two Soft Cheeses, made from Whole Milk.

- 481 I (24)—MRS RACHEL JAMES, Llanccayo, Usk, Mon
 487 II (22)—FRED WEBSTER, Shoby Priory Melton Mowbray
 484 III (21)—MRS WILLIAM J J PANTALL, Kilkington Manor, Staunton on Wye
 483 R. N.—MRS B J MUDD, Aldborough Dairy, Boroughbridge, Yorks

Class 472.—Two Cheeses, made from Cream without the addition of Rennet.

- 495 I (24)—MRS WILLIAM J J PANTALL Kilkington Manor, Staunton on Wye
 402 II (22)—CAPTAIN N C LIVINGSTONE LLARMONTH, Lifehead Magdalen, Gillingham, Dorset
 489 III (21)—J R BOLITHO Trengwainton Penzance
 496 IV (10s)—THE DUKE OF PORTLAND K C Welbeck Abbey, Worksop
 498 V (5s)—FRED WEBSTER Shoby Priory Melton Mowbray
 499 R. N.—LT COL SIR A G WEIGALL, K C M G, Petwood, Woodhall Spa

Cider.

Class 473.—Six Bottles of Dry Cider, made in 1924

- 503 I (23)—THE QUANTOCK VALLEY CIDER CO, LTD, North Petherton, Bridgwater
 501 II (22), 502 III (21), & 500 R. N.—HERBERT J DAVIS, Goldsborough Farm, Sutton Montis, Yeovil

Class 474.—Six Bottles of Sweet Cider, made in 1924

- 504 I (23), & 506 R. N.—SIR IAN HEATHCOAT AMORY BART, Knights Hayes Court, Tiverton
 508 II (22)—HERBERT J DAVIS Goldsborough Farm, Sutton Montis, Yeovil
 510 III (21), & 511 IV (10s)—THE QUANTOCK VALLEY CIDER CO, LTD, North Petherton
 Bridgwater
 H C—507 C—505

Class 475.—Six Bottles of Cider, made before 1924

- 515 I (23), 514 II (22), & 513 III (21)—SIR IAN HEATHCOAT AMORY, BART Knights Hayes Court Tiverton
 510 R. N.—HERBERT J DAVIS, Goldsborough Farm, Sutton Montis, Yeovil
 H C—518 C—517

Wool.¹

Of 1925 clip

Class 476.—Three Fleeces of Oxford Down Wool

- 522 I (23), & 523 II (22)—GEORGE HARRISON, Gainford Hall, Darlington
 525 III (21)—HUGH W STILGOE, The Grounds, Adderbury, Banbury

Class 477.—Three Fleeces of Shropshire Wool

- 528 I (23)—N J NUNNERLEY, Tern Hill House, Market Drayton
 530 II (22), & 529 III (21)—E CRAIG TANNER, Kyton-on Severn, Cross Houses, Salop
 526 R. N.—WILLIAM VERALL, Shrawardine Castle, Shrewsbury

Class 478.—Three Fleeces of Southdown Wool

- 537 I (23)—SIR HARRY WHITEHEAD, Stagenhoe Park, Welwyn
 538 II (22)—J K WILLIAMSON, Derwen Hall, Corwen
 533 III (21)—LADY UDLOW, Luton Hoo, Luton
 532 R. N.—MRS LEATHAM, The Manor, Bagendon, Cirencester

¹ The Second and Third Prizes in these Classes were given by the respective Flock Book Societies

Class 479.—Three Fleeces of Hampshire Down Wool.

542 I (23), & 543 II (22)—WILLIAM FODD, Little Ponton Grange, Grantham
549 III (21)—JAMES GOLDSMITH, Blendworth Horndean, Cosham, Hants

Class 480.—Three Fleeces of Suffolk Wool

549 I (23)—MAJOR GEN LORD TREVORN C B, C M G, Llanover Abergavenny
550 II (22), & 551 III (21)—R WORSLEY WORKWICK Acton Round, Bridgnorth
547 R N—1 W GOODCHILD, The Change, Great Yeldham, Essex

Class 481.—Three Fleeces of Dorset Down Wool.

553 I (23), & 554 II (22)—LEONARD LORY, Turnworth, Blanford
552 III (21) MRS LIONEL DE ROUHSCHILD, Exbury, Southampton

Class 482.—Three Fleeces of Dorset Horn Wool

556 I (23), 557 II (22), & 555 III (21)—R B VINCENT, Manor Farm, Waterson, Dorchester

Class 483.—Three Fleeces of Ryeland Wool

560 I (23), & 561 II (22)—DAVID J THOMAS, Talachddu, Brecon
559 III (21)—1 W MORRIS, Brynderwen, Llangastyn, Llanfyllin, Brecon
558 R N—LT COL G D HALE, Coston Manor, Aston on Clun

Class 484.—Three Fleeces of Kerry Hill (Wales) Wool

563 I (23)—THOMAS JONES, Great Weston, Montgomery
562 II (22)—BAY ALDERSON, Glanmihell, Kerry, Mont
564 III (21)—J C JONES, Graig, Llanfair, Welshpool

Class 485.—Three Fleeces of Lincoln Wool

572 I (23)—THOMAS SPINK & SONS, Hunmanby, Yorks
571 II (22)—RAWNLEY & LINDALL, Well Vale, Alford and Park House, Louth
568 III (21)—T DUGGIBY, Dalton Holme, Beverley
570 R N—CLIFFORD NICHOLSON, Horkstow Manor, Barton on Humber

Class 486.—Three Fleeces of Leicest Wool.

574 I (23), & 575 III (21)—GEORGE HARRISON, Gunford Hall, Darlington
576 II (22)—C H SIMPSON & SONS, Castle House, Hunmanby

Class 487.—Three Fleeces of Border Leicester Wool

577 I (23)—WILLIAM DAVIDSON, East Learmouth, Cornhill on Tweed

Class 488.—Three Fleeces of Wensleydale Wool

578 I (23)—JOHN W GREENSIT, Holme on Swale, Thirsk
581 II (22), & 580 III (21)—JOHN A WILKES, Main House, Carperby, Yorks
579 R N—JOHN PLECEVAL, Easthouse, Carperby, Yorks

Class 489.—Three Fleeces of Kent or Romney Marsh Wool, from Rams of any age

584 I (23)—L H and G W LINN, The Mall, Faversham
583 II (22)—ARTHUR LINN, Westbrooke House, Lydd, Kent
586 III (21)—J EGERTON QULSTED, The Firs, Cheriton, Kent
585 R N—THE LARL OF GUILFORD, Waldershare Park, Dover

Class 490.—Three Fleeces of Kent or Romney Marsh Wool, from Live Teds

588 I (23)—L H and G W FINN, The Mall, Faversham
590 II (22)—J LGERTON QUESFED, The Firs, Cheriton, Kent
587 III (21)—J RAYNER BETTS, Greenhill Farm, Otham, Maidstone

Class 491.—Three Fleeces of Kent or Romney Marsh Wool, excluding Rams and Ewe Teds

593 I (23), 592 II (22), & 591 III (21)—L H and G W FINN, The Mall, Faversham
595 R N—J LGERTON QUESFED, The Firs, Cheriton, Kent

Class 492.—Three Fleeces of Exmoor Horn Wool

596 I (23), & 597 II (22)—D J TAPP, Highercombe, Dulverton

Class 493.—Three Fleeces of Welsh Mountain Wool.

608 I (23)—J K WILLIAMSON, Derwen Hall, Corwen
605 II (22)—ROBERT IVOR ROBERTS, Dyserth Hall, Dyserth, Flint
598 III (21)—H O LUIS, Tynhendre, Bangor
602 R N—LT COL E W GRIFFITH, D S O, Plasnewydd, Denbigh

Class 494.—Three Fleeces of Black Welsh Mountain Wool

612 I (23)—MRS MARGARET L J POWELL, Nantco, Aberystrwyth
609 II (22)—ALFRED E W DARBY, Adcote, Shrewsbury
610 III (21), & 611 R N—MRS I H T JERVOISE, Herriard Park, Basingstoke

POULTRY.

By "Cock," "Hen," "Gander," and "Goose," are meant birds hatched previous to January 1, 1925, and by "Cockerel" and "Pullet" are meant birds hatched in 1925

The Prizes in each Class are as follows First Prize, 40s Second Prize, 30s

Third Prize, 20s Fourth Prize, 10s Fifth Prize, 5s

Special Prizes were given in the Poultry Classes by the following Clubs Dorking, Sussex, White Wyandotte, Columbian Wyandotte, Australorp, British Rhode Island Red, and Indian Runner Duck

Class 495.—Dorking Cocks.

4 I & Special—RALPH ALTY, Gravel Farm, Croston, Preston

5 II & 1 R N—A J MAJOR, Ditton, Langley Bucks

2 III—JAMES W HALL, Lvening Hill, Cockermouth
H C.—3

Class 496.—Dorking Hens.

13 I—A J MAJOR, Ditton, Langley, Bucks

11 II—RALPH ALTY, Gravel Farm, Croston, Preston

10 III, 14 IV & 6 R N.—ALEXANDER MANN, Broomhill Road, Keith
H C.—9 C—7

Class 497.—Dorking Cockerels.

18 I & 16 III—A J MAJOR, Ditton, Langley Bucks

15 II—THOMAS BRIDEN, Cononley, via Kighley

Class 498.—Dorking Pullets.

19 I & R N for Special—THOMAS BRIDEN, Cononley, via Kighley

22 II & 20 III—A J MAJOR, Ditton Langley Bucks

Class 499.—Croad Langshan Cocks or Cockerels.

23 I—MISS A H GORDON BARRETT, The Mount Farm, Hedgerley Corner, Farnham Royal

32 II—ALFRED GIDDINGS, Hillcrest, Chapel en le Irith

30 III—LINDLEY & ROGERS, Gate House Farm, Hurstpierpoint

25 IV—L A MERCKEL, Kingswood Poultry Farm, Upper Warlingham

33 R N—W H MITCHELL, Lindene, Kenilworth

H C—28 C—24.

Class 500.—Croad Langshan Hens or Pullets.

98 I—LINDLEY & ROGERS, Gate House Farm, Hurstpierpoint

34 II & 41 R N—MISS A H GORDON BARRETT, The Mount Farm, Hedgerley Corner, Farnham Royal

35 III—L A MERCKEL, Kingswood Poultry Farm, Upper Warlingham

40 IV—J EDWARD COCKER, 101 Towngate, Leyland, Lancs

H C.—43 C—36

Class 501.—Brahma or Cochin Cocks or Cockerels.

45 I—G W HENSHALL, The Hollies, T mperley, Cheshire

44 II—LORD DEWAR Homestall, East Grinstead

47 III—COL R S WILLIAMSON, The Grange, Hednesford, Staffs

53 IV—H MARTIN WRIGHT, The Poplars, Great Shelford, Cambs

48 R N—MRS DOUGLAS LAMBLET, Beeston Hill, Leeds

H C—51 C—50

Class 502.—Brahma or Cochin Hens or Pullets.

57 I & 54 II—MRS W THOMPSON, Old Chilwell, Notts

56 III—F A HARGREAVES, Bradda, 9 Norfolk Road, Lytham

Class 503.—Red Sussex Cocks.

58 I & Special & 63 II—MAJOR J A MORRISON, DSO, Basildon Park, Goring, Reading

61 III—JAMES RUSSEL Mapleton Four Limes, Edenbridge

60 R N—MRS M MARSTON, Highwoods, Whydown, Beahill

H C.—59 C—62

Class 504.—Red Sussex Hens.

69 I & 66 III—MAJOR J A MORRISON, DSO, Basildon Park, Goring, Reading

68 II—A J FALKENSTEIN, Marsons Croft, Rotherfield

65 R N—FRANCIS D WATSON, Croftbank, Thornton Hough, Birkenhead

H C.—67

Class 505.—Red Sussex Cockerels.

- 72 I.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 71 II.—JAMES RUSSEL, Mapleton, Four Elms, Eidenbridge
 73 III.—A J FALKENSTEIN, Marsons Croft, Rotherfield
 70 R. N.—MRS M MARSTON, Highwoods, Whydown, Bexhill

Class 506.—Red Sussex Pullets.

- 75 I. & R. N. for Special.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 78 II.—A J FALKENSTEIN, Marsons Croft, Rotherfield
 74 III.—FRANCIS D WALSON, Croftbank, Thornton Hough, Birkenhead
 77 R. N.—JAMES RUSSEL, Mapleton, Four Elms, Eidenbridge

Class 507.—Light Sussex Cocks.

- 81 I. & 87 III.—JAMES RUSSEL, Mapleton, Four Elms, Eidenbridge
 79 II.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 84 IV.—J S WORSLEY, The Cottage, Thornaby Village, Yorks
 90 V.—R L BRIDGON, Knowles Hall Farm, Riddings, Alfreton
 86 R. N.—I HORTON JEFFERSON, Wistaston Cottage, near Crewe
 H C.—83 C.—89

Class 508.—Light Sussex Hens.

- 92 I. & 102 V.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 103 II.—A J FALKENSTEIN, Marsons Croft, Rotherfield
 101 III.—JAMES RUSSEL, Mapleton, Four Elms, Eidenbridge
 100 IV.—I HORTON JEFFERSON, Wistaston Cottage, near Crewe
 97 R. N.—MISS A H GORDON BARRETT, The Mount Farm, Hedgerley Corner, Farnham Royal
 H. C.—90 C.—94

Class 509.—Light Sussex Cockerels.

- 121 I. & R. N. for Special and Cup & 111 R. N.—JAMES RUSSEL, Mapleton, Four Elms, Eidenbridge
 131 II.—R ANTHONY, Home Farm, Luxton, Chorley, Lancs
 115 III.—MRS M MARSTON, Highwoods, Whydown, Bexhill
 120 IV.—DESBOROUGH DOBSON, Woodlea, Windermere Road, Haywards Heath.
 128 V.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 H. C.—126 C.—127

Class 510.—Light Sussex Pullets.

- 153 I. & Special and Cup, & 138 II.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 155 III.—WALTER GOODERIDGE, The Bungalow, Wormald Green, Harrogate
 156 IV.—A J FALKENSTEIN, Marsons Croft, Rotherfield
 145 V.—JAMES RUSSEL, Mapleton, Four Elms, Eidenbridge
 137 R. N.—CHARLES HARDY, Argos Hill, Rotherfield
 H. C.—142 C.—135

Class 511.—Speckled Sussex Cocks.

- 160 I. & Special.—JAMES RUSSEL, Mapleton, Four Elms, Eidenbridge.
 169 II.—R ANTHONY, Home Farm, Luxton, Chorley, Lancs
 164 III.—A J FALKENSTEIN, Marsons Croft, Rotherfield
 165 IV.—THOMAS BROTHERS, 10 London Place, Oxford
 163 R. N.—I HORTON JEFFERSON, Wistaston Cottage, near Crewe.
 H. C.—167 C.—166

Class 512.—Speckled Sussex Hens.

- 171 I.—CAPT T M WHITTAKER, Pen y Bryn Farm, Portmadoc
 178 II.—R ANTHONY, Home Farm, Luxton, Chorley, Lancs
 177 III.—E G RYALL, Grove Park, Tavistock
 174 IV.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 172 R. N.—A J FALKENSTEIN, Marsons Croft, Rotherfield
 H. C.—170 C.—175

Class 513.—Speckled Sussex Cockerels.

- 181 I. & 185 III.—JAMES RUSSEL, Mapleton, Four Elms, Eidenbridge
 182 II.—CAPT T M WHITTAKER, Pen y Bryn Farm, Portmadoc
 183 R. N.—A J FALKENSTEIN, Marsons Croft, Rotherfield

Class 514.—Speckled Sussex Pullets.

- 194 I. & R. N. for Special.—D W DAVIS, Fields Farm, Llanymynech
 192 II.—A J FALKENSTEIN, Marsons Croft, Rotherfield
 191 III.—DESBOROUGH DOBSON, Woodlea, Windermere Road, Haywards Heath.
 196 IV.—E G RYALL, Grove Park, Tavistock
 193 R. N.—I HORTON JEFFERSON, Wistaston Cottage, near Crewe.
 H. C.—190 C.—187

Class 515.—Brown Sussex Cocks.

- 197 I & Special, 203 II, & 199 R N—CHARLES HARDY, Argos Hill, Rotherfield
200 III—DEWBOROUGH DOBSON, Woodlea, Windermere Road, Haywards Heath
H C—201 C—198

Class 516.—Brown Sussex Hens.

- 204 I—S SNELSON, Mount Rose, Smallwood, Sandbach
211 II—DEWBOROUGH DOBSON, Woodlea, Windermere Road, Haywards Heath
206 III—A J JALFMANSTEIN, Marsons Croft, Rotherfield
208 IV & 202 R N—CHARLES HARDY, Argos Hill, Rotherfield
H C—210 C—209

Class 517.—Brown Sussex Cockerels

- 218 I—BLAKSLAY & BLYTH, West Moors, Dorset
216 II—DEWBOROUGH DOBSON, Woodlea, Windermere Road, Haywards Heath
217 III—CHARLES HARDY, Argos Hill, Rotherfield
213 R N—JAMES RUSSELL, Mipleton, Four Lims, Lidenbridge

Class 518.—Brown Sussex Pullets

- 219 I & R N for Special—JAMES RUSSELL, Mankton Four Lims, Lidenbridge
223 II—MAJOR J A MORRISON DSO, Aldon Park Goring, Reading
222 III—A J JALFMANSTEIN, Marsons Croft, Rotherfield
220 R N—CHARLES HARDY, Argos Hill, Rotherfield
H C—221 C—224

Class 519.—White Wyandotte Cocks

- 225 I—LORD DEWAR, Homestall East Grinstead
226 II & 240 R N—R ANTHONY, Home Farm, Luxton Chorley, Lancs
227 III—MISS A H GORDON BARRATT, The Mount Farm, Hedgerley Corner, Farnham Royal

Class 520.—White Wyandotte Hens.

- 232 I—LORD DEWAR, Homestall East Grinstead
234 II & 239 III—R ANTHONY, Home Farm, Luxton Chorley, Lancs
240 IV—P BOWLER, 11 or 1oultry Yard, Sheerness East
235 R N—WILFRED W WOODWARD, Frome Valley Poultry Farm, Bishops Frome, Worcester

Class 521.—White Wyandotte Cockerels

- 243 I & Special, & 241 II & R N for Special—LORD DEWAR, Homestall East Grinstead
250 III & 244 R N—R ANTHONY, Home Farm, Luxton Chorley, Lancs
247 IV—MISS A H GORDON BARRATT, The Mount Farm, Hedgerley Corner, Farnham Royal
251 V—B R IRONS, Ldward Street, Dunstable

Class 522.—White Wyandotte Pullets.

- 253 I & Special—LORD DEWAR, Homestall East Grinstead
256 II & R N for Special—T P BURWELL, Idlington, Beds
263 III—B R IRONS, Ldward Street, Dunstable
261 IV—R ANTHONY, Home Farm, Luxton Chorley, Lancs
260 R N—MATTHEW NIVISON, Nateby, Kirby Stephen

Class 523.—Gold or Silver Laced Wyandotte Cocks or Cockerels.

- 264 I & 273 II—R ANTHONY, Home Farm, Luxton Chorley, Lancs
261 III—W A and R L SPENCER, Climscoate, Billes, Banbury
268 IV—WILFRED W WOODWARD, Frome Valley Poultry Farm, Bishops Frome, Worcester
267 R N—J G MORTEN, Pentrich, Derby
H C—269 C—272

Class 524.—Gold or Silver Laced Wyandotte Hens or Pullets.

- 281 I—R ANTHONY, Home Farm, Luxton Chorley, Lancs
276 II—K R MACKFAY, 58 St Ldward Street, Leek
278 III—HERBERT SPENSLAY, Oaks Farm, Menston, Leeds
277 R N—CAPT F S CHRISTIE, Wardrew, Gilsland Carlisle

Class 525.—Columbian Wyandotte Cocks or Cockerels

- 284 I & Special—L H WACE, Kingsland Poultry Farm, Solway Ash, Bridport
286 II & R N for Special—GEORGE TOWKIN, Marden, Kent
285 III—S J SHEPHERD, Boughton, Bridgnorth
282 R N—J W GERRARD, Pownall Green, Over Tabley, Knutsford

Class 526.—Columbian Wyandotte Hens or Pullets.

- 287 I—R P PERCIVAL, Shuttington House, Lamworth
294 II—GEORGE TOWKIN, Marden, Kent
291 III—L H WACE, Kingsland Poultry Farm, Solway Ash, Bridport
288 IV—R P SWALES, Newbridge Street, Wolverhampton
293 R N—WILLIAM R READHEAD, Lynwood, Hamborough, Yorks

Class 527.—Wyandotte Cocks or Cockerels, any other colour.

- 303 I. & 300 R. W.—F VERNON HEWITT, White Lodge, Quorn, Loughborough
 297 II.—ROBERT BELL, Wetheral, Carlisle
 302 III.—COL R S WILLIAMSON, The Grange, Huddersford Staffs

Class 528.—Wyandotte Hens or Pullets, any other colour.

- 306 I. & 309 R. W.—F VERNON HEWITT, White Lodge, Quorn, Loughborough
 305 II.—R ANTHONY, Home Farm, Euxton, Chorley, Lancs
 308 III.—J A BOARDLEY, Slyne Road, Lancaster

Class 529.—Buff Orpington Cocks.

- 312 I.—J BROOKS, Myrtle Poultry Farm, Irlam, Manchester
 313 II.—R ANTHONY, Home Farm Euxton, Chorley, Lancs
 310 III.—W J GOLDING, Bowens, Penshurst, Kent
 311 R. W.—CHARLES HATTON, Willaston Poultry Farm Nantwich

Class 530.—Buff Orpington Hens.

- 317 I.—S SNELSON, Mount Road, Smallwood, Sandbach
 316 II.—R ANTHONY, Home Farm Euxton, Chorley, Lancs
 310 III.—J BROOKS, Myrtle Poultry Farm, Irlam, Manchester
 315 R. W.—W J GOLDING, Bowens, Penshurst, Kent

Class 531.—Black Orpington Cocks.

- 321 I.—JOSEPH LEWIS, Cote Brook, Iarporley
 322 II.—FRED SWINDELLS, Diglake Farm, Buglawton Cheshire
 326 III.—R ANTHONY, Home Farm, Euxton, Chorley, Lancs
 325 R. W.—MISS N SHAWES, Stetchworth, Newmarket

Class 532.—Black Orpington Hens.

- 329 I.—JOSEPH LEWIS, Cote Brook, Iarporley
 332 II.—R ANTHONY, Home Farm, Euxton, Chorley, Lancs
 328 III.—GEORGE DICKSON, Hollin Ridge, Wormald Green, Harrogate
 330 R. W.—FRED SWINDELLS, Diglake Farm Buglawton, Cheshire

Class 533.—Orpington Cocks, any other colour.

- 334 I.—GEORGE DICKSON, Hollin Ridge, Wormald Green, Harrogate
 337 II.—R ANTHONY, Home Farm, Euxton, Chorley, Lancs
 336 III.—HAROLD CORRIE, Heath House Farm, Howfield Heath Surrey
 335 R. W.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading

Class 534.—Orpington Hens, any other colour.

- 342 I.—LORD DEWAR, Homestall, East Grinstead
 340 II. & 344 III.—R ANTHONY, Home Farm, Euxton, Chorley, Lancs
 341 R. W.—LIEUT COL H WATTS, O B L, Haslington Hall, Crewe

Class 535.—Orpington Cockerels, any colour.

- 345 I.—JOSEPH LEWIS, Cote Brook, Iarporley
 346 II.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 347 III.—A HAMMOND BROWN, 53 Norfolk Street, King's Lynn
 348 R. W.—T W and J K FROST, Bryntirion Poultry Farm, Deganwy

Class 536.—Orpington Pullets, any colour.

- 353 I.—JOSEPH LEWIS, Cote Brook, Iarporley
 349 II.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 350 III.—PERCY TICE, Mill Farm, Ingworth, Norwich
 352 R. W.—A HAMMOND BROWN, 53 Norfolk Street, King's Lynn

Class 537.—Australorp Cocks or Cockerels

- 354 I. & Special.—LORD DEWAR, Homestall, East Grinstead
 364 II. & R. W. for Special.—MISS CATHERINE GLADSTONE, Manley Hall, Halsby, Cheshire
 360 III. & 365 V.—CAPT Mugleston, Latham Grange, Latham, Ormskirk
 366 IV.—MRS WIENHOLT, Howcaple Grange, Ross, Herefordshire
 359 R. W.—ARTHUR LEVET, Cotswold Utility Poultry Farm, Henley
 H. G.—356 G.—357

Class 538.—Australorp Hens or Pullets.

- 374 I. & Special.—ARTHUR LEVET, Cotswold Utility Poultry Farm, Henley
 377 II. & R. W. for Special. & 369 IV.—H HAROLD LLOYD, Offley Poultry Farm, Sandbach
 367 III.—LORD DEWAR, Homestall, East Grinstead
 368 V.—MRS WARD JACKSON, Street Court, Kingsland
 370 R. W.—F H HAMPSHIRE, 1 Parkthorn Holmfirth
 H. G.—376 G.—375

clviii *Awards of Poultry Prizes at Chester, 1925.*

Class 539.—British Rhode Island Red Single Comb Cocks.

- 387 I. & Special, & 392 II. & R. N. for Special.—S. SNELSON, Mount Rose, Smallwood, Sandbach.
 385 III.—GEORGE SCOTT, Peerless Poultry Farm, Mirfield.
 384 IV.—DR. E. S. JACKSON, Poultry Farm, Carnforth.
 388 V.—MRS. GEOFFREY SPENCER, Reedley, Woodgate, Bexhill.
 391 R. N.—JOHN SPENCER, Market Place, Ashbourne.
 H. C.—381, 386, 393. C.—380.

Class 540.—British Rhode Island Red Single Comb Hens.

- 398 I.—GEORGE SCOTT, Peerless Poultry Farm, Mirfield.
 399 II. & 402 IV.—MRS. GEOFFREY SPENCER, Reedley, Woodgate, Bexhill.
 394 III.—CAPTAIN W. JOLLANS, M.C., Scotter, Gainsborough.
 401 R. N.—S. SNELSON, Mount Rose, Smallwood, Sandbach.
 H. C.—396.

Class 541.—British Rhode Island Red Single Comb Cockerels.

- 406 I.—F. SHADWELL CLERKE, Hilltop, Butley, Prestbury.
 411 II.—JOB GRIMSHAW, Brook House Farm, Halsall, Ormskirk.
 414 III.—J. CAVILL, Bawtry Road, W. Wersley, Rotherham.
 409 IV. & 417 R. N.—S. SNELSON, Mount Rose, Smallwood, Sandbach.
 410 V.—MRS. GEOFFREY SPENCER, Reedley, Woodgate, Bexhill.
 H. C.—404, 413, 416. C.—407, 412.

Class 542.—British Rhode Island Red Single Comb Pullets.

- 426 I. & Special.—FRANK SMITH & Co., Orchard Poultry Yards, Hessay, York.
 444 II. & R. N. for Special.—JOHN SPENCER, Market Place, Ashbourne.
 421 III.—R. B. HULTON, Lynnhurst, Farington, Preston.
 433 IV.—GEORGE SCOTT, Peerless Poultry Farm, Mirfield.
 445 V.—S. SNELSON, Mount Rose, Smallwood, Sandbach.
 422 R. N.—CAPTAIN W. JOLLANS, M.C., Scotter, Gainsborough.
 H. C.—420, 424, 425, 432, 436 C.—418, 419.

Class 543.—British Rhode Island Red Rose Comb Cocks.

- 446 I. & Special.—F. W. N. GODDARD, Sun Street, Hitchin.
 440 II.—A. J. MAJOR, Ditton, Langley, Bucks.
 452 III.—G. H. MUZZLEWHITE, Redlands, Tavistock.
 447 R. N.—JOHN VOYCE, 3 Toleman Avenue, Bebington, Cheshire
 H. C.—448, 449.

Class 544.—British Rhode Island Red Rose Comb Hens.

- 454 I.—JOSEPH W. BEARD, Skegby, Mansfield.
 456 II.—G. H. MUZZLEWHITE, Redlands, Tavistock.
 457 III.—JOHN SPENCER, Market Place, Ashbourne.
 455 R. N.—TOM A. SCOTT & Co., The Trenches, Middle Green, Slough.
 H. C.—453.

Class 545.—British Rhode Island Red Rose Comb Cockerels.

- 462 I.—JOHN SPENCER, Market Place, Ashbourne.
 459 II.—MRS. C. COLBECK, Boyle Hall, West Ardsley, Wakefield.
 458 III.—CAPTAIN R. W. ABELL, The Elms, Stapleton, Leicester.

Class 546.—British Rhode Island Red Rose Comb Pullets.

- 472 I. & R. N. for Special.—B. L. BOSANQUET, Holmleigh, Davilah.
 468 II.—JOHN VOYCE, 3 Toleman Avenue, Bebington, Cheshire.
 473 III.—JOHN SPENCER, Market Place, Ashbourne.
 463 IV. & 469 R. N.—JOSEPH W. BEARD, Skegby, Mansfield.
 C.—465.

Class 547.—Barred Plymouth Rock Cocks.

- 479 I.—JOHN TAYLOR, Heath Farm, Tiptree.
 477 II.—E. MARSHALL, Hollyhurst, Lenton, Nottingham.
 480 III.—DR. E. S. JACKSON, Poultry Farm, Carnforth.
 478 R. N.—W. R. WILLIAMS, Carnforth.
 H. C.—476. C.—475.

Class 548.—Barred Plymouth Rock Hens.

- 487 I.—JOHN PENNINGTON, Heswall-on-Dee, Birkenhead.
 485 II.—E. MARSHALL, Hollyhurst, Lenton, Nottingham.
 486 III.—JAMES BATEMAN, Milnthorpe.
 488 R. N.—DR. E. S. JACKSON, Poultry Farm, Carnforth.
 H. C.—483.

Class 549.—Barred Plymouth Rock Cockerels.

- 492 I.—W R WILLIAMS, Carnforth
 494 II.—JAMES BATTMAN, Milnthorpe
 493 III.—DR E S JACKSON, Poultry Farm, Carnforth
 489 IV.—FRED CARDING, Greenlands, Market Drayton
 H. C.—495

Class 550.—Barred Plymouth Rock Pullets.

- 500 I.—FRED CARDING, Greenlands, Market Drayton
 502 II.—W W W BUTT, Eastfield Farm, North Thorpeby, Lincs
 506 III.—DR E S JACKSON, Poultry Farm, Carnforth
 498 R. M.—JAMES LEWIS, 85 Church Street, Old Whittington, Chesterfield
 H. C.—503

Class 551.—Buff Plymouth Rock Cocks or Cockerels.

- 515 I.—S SNELSON, Mount Rose, Smallwood, Sandbach
 511 II.—ABBOT BROTHERS, Thuxton, Norfolk
 518 III.—A C TATTERSALL, Watlingford, Altrincham
 508 IV.—ARTHUR W GODWIN, 30 St Edward Street, Leek
 506 V.—JAMES BATTMAN, Milnthorpe
 514 R. M.—W W W BUTT, Eastfield Farm, North Thorpeby, Lincs
 H. C.—516 C.—510

Class 552.—Buff Plymouth Rock Hens or Pullets.

- 530 I. & 524 II.—A C TATTERSALL, Watlingford, Altrincham
 528 III.—MATHEW SLATER, Redwell Poultry Farm, Carnforth
 529 IV.—ARTHUR W GODWIN, 30 St Edward Street, Leek
 523 R. M.—W R ABBEY, Croft Farm, Hessey, York
 H. C.—527 C.—522

Class 553.—Plymouth Rock Cocks or Cockerels, any other colour.

- 535 I.—R ANTHONY, Home Farm, Kuxton, Chorley, Lancs
 531 II.—FRED NORTH, Almsdale, Southport
 533 III.—TOM CARR, Keswick House, Annan, N B

Class 554.—Plymouth Rock Hens or Pullets, any other colour.

- 537 I.—LORD DEWAR, Homestall, East Grinstead
 538 II. & 543 R. M.—MATHEW SLATER, Redwell Poultry Farm, Carnforth
 541 III.—DR E S JACKSON, Poultry Farm, Carnforth
 542 IV.—TOM CARR, Keswick House, Annan, N B

Class 555.—Old English Game Black-Red Cocks or Cockerels.

- 549 I.—DAVID OWEN, 13 Lykha Wen, Tonyreful Glam
 550 II.—T MAGILL, Newcastle, Co Down, Ireland
 554 III. & 547 R. M.—TOM WOODCOCK, Burton Len, Lincoln
 553 IV.—J H BAKER & SONS, Windyash, Barnstaple
 H. C.—552 C.—555

Class 556.—Old English Game Clay or Wheaten Hens or Pullets.

- 559 I.—GORDON LEE, Upbrook, Clitheroe
 561 II.—J H BAKER & SONS, Windyash, Barnstaple
 560 III.—ARTHUR BROWN, The Old Hall, Houghington
 556 R. M.—A W NOTON, Upper End, Peak Dale, Stockport
 H. C.—558 C.—557

Class 557.—Old English Game Cocks or Cockerels, any other colour.

- 563 I.—MAJOR J A MORRISON, DSO, Basildon Park, Goring, Reading
 575 II.—R WATSON, Home Farm, Bletchley Park, Bucks
 570 III.—WILLIAM IELFORD, Breconside, Bampton, Cumberland
 572 IV.—B B PRICE, Briton, Rhayader, Radnorshire
 567 V.—GORDON LEE, Upbrook, Clitheroe
 566 R. M.—JOSEPH GRAVES, Station House, Bullgill
 H. C.—573 C.—564

Class 558.—Old English Game Hens or Pullets, any other colour.

- 576 I.—J H BAKER & SONS, Windyash, Barnstaple
 578 II. & 584 III.—JOHN WATSON, Eden Mount, Kendal
 577 IV.—JOSEPH GRAVES, Station House, Bullgill
 580 R. M.—GORDON LEE, Upbrook, Clitheroe
 H. C.—582 C.—583

Class 559.—Indian Game Cocks or Cockerels.

- 596 I. & 599 II.—RICHARD BELCHER, 9 Barrons Street, West Bromwich.
 593 III.—GEORGE FAULKNER, Rowton, Chester.
 585 IV.—LORD DEWAR, Homestall, East Grinstead.
 597 V.—JAMES HARRIS, Laurel Cottage, St. Martins, Oswestry
 586 R. M.—W. G. BRENT, Warrens Park, Coads Green, Launceston
 H. C.—598 C.—591.

Class 560.—Indian Game Hens or Pullets.

- 604 I. & 611 II.—RICHARD BELCHER, 9 Barrons Street, West Bromwich
 612 III.—J. H. BAKER & SONS, Windyash, Barnstaple
 610 IV.—GEORGE FAULKNER, Rowton, Chester
 603 V.—W. G. BRENT, Warrens Park, Coads Green, Launceston.
 602 R. M.—ABBOT BROTHERS, Thuxton, Norfolk.
 H. C.—600. C.—601.

Class 561.—Minorca Cocks or Cockerels.

- 613 I.—LORD DEWAR, Homestall, East Grinstead.
 617 II.—J. T. FARRAR & SON, 64 St. George Street, Smethwick
 618 III.—ALFRED DODD, The Grove, Shavington, Crewe
 616 R. M.—S. E. PARKER, 466 Bloxwich Road, Leamore, Walsall.
 H. C.—614.

Class 562.—Minorca Hens or Pullets.

- 622 I. & 627 R. M.—ALFRED DODD, The Grove, Shavington, Crewe
 625 II.—JOHN W. LOWE, 4 Queen's Street, Northfields, Stamford
 619 III.—LORD DEWAR, Homestall, East Grinstead
 624 IV.—S. E. PARKER, 466 Bloxwich Road, Leamore, Walsall
 H. C.—620 C.—626.

Class 563.—White Leghorn Cocks or Cockerels.

- 628 I.—LORD DEWAR, Homestall, East Grinstead.
 632 II.—R. ANTHONY, Home Farm, Euxton, Chorley, Lancs.
 630 III.—WHITAKER & TOOTILL, Great Ouseburn, Yorks

Class 564.—White Leghorn Hens or Pullets.

- 633 I.—LORD DEWAR, Homestall, East Grinstead
 641 II.—THOMAS BROTHERS, 10 London Place, Oxford.
 638 III.—A. H. STANBURY, Bradley House, Newton Abbot.
 637 IV.—R. ANTHONY, Home Farm, Euxton, Chorley, Lancs.
 636 R. M.—WHITAKER & TOOTILL, Great Ouseburn, Yorks.
 H. C.—640. C.—635.

Class 565.—Leghorn Cocks or Cockerels, any other colour.

- 648 I.—MARTIN NICHOLLS, Station House, Warrington.
 646 II.—ERNEST L. L. SIMON, Pembroke
 643 III.—WALTER HURST, South Terrace, Glossop.
 650 R. M.—E. ANTHONY, Home Farm, Euxton, Chorley, Lancs.
 H. C.—647.

Class 566.—Leghorn Hens or Pullets, any other colour.

- 657 I.—R. ANTHONY, Home Farm, Euxton, Chorley, Lancs.
 651 II. & 656 R. M.—WALTER HURST, South Terrace, Glossop.
 653 III.—W. DEAN, JUN., 7 Rimmers Avenue, Freshfield, Liverpool
 H. C.—655. C.—654.

Class 567.—Ancona Cocks or Cockerels.

- 665 I.—E. NEWALL, Gravel, Winsford, Cheshire.
 666 II. & 661 IV.—R. ANTHONY, Home Farm, Euxton, Chorley, Lancs.
 664 III.—HENRY HARTLEY, Seghole Cottage, Trawden Forest, Colne
 659 R. M.—ALLEN HEATH, Moss Rose, Stanthorne, Middlewich.
 H. C.—660. C.—663.

Class 568.—Ancona Hens or Pullets.

- 671 I.—ALLEN HEATH, Moss Rose, Stanthorne, Middlewich.
 670 II.—R. ANTHONY, Home Farm, Euxton, Chorley, Lancs.
 676 III.—FREDERICK SCOTT, West Garth, Arnsdale, via Carnforth.
 673 IV.—HENRY HARTLEY, Seghole Cottage, Trawden Forest, Colne.
 674 R. M.—E. NEWALL, Gravel, Winsford, Cheshire.
 H. C.—672. C.—669.

Class 569.—Campine Cocks or Cockerels.

- 677 I.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 679 II.—LIEUT.-COMDR HOWARD G NALDER, Tangley Mere, Chilworth, Surrey
 681 III.—LIEUT.-COL W G LUCAS, Beech Place, Stowmarket
 H. C.—680. C.—678

Class 570.—Campine Hens or Pullets.

- 684 I.—LIEUT.-COMDR HOWARD G NALDER, Tangley Mere, Chilworth, Surrey.
 682 II.—LIONEL TURNER, The Old House, Lewes
 683 III. & 686 R. N.—LIEUT.-COL W G LUCAS, Beech Place, Stowmarket
 H. C.—685

Class 571.—Sicilian Buttercup Cocks or Cockerels.

- 689 I.—LAWRENCE A HOLMES, The Grove, Litwall, Derby
 691 II. & 695 R. N.—TOM A SCOTT & Co, The Trenches, Middle Green, Slough
 688 III.—MRS C COLEBECK, Boyle Hall, West Ardsley, Wakefield
 693 IV.—BLAKESLEY & BLYTH, West Moors, Dorset
 H. C.—687 C.—692

Class 572.—Sicilian Buttercup Hens or Pullets.

- 698 I. & 702 III.—ERNEST JAMES GEE, Hartley Grange, Longfield, Kent
 697 II.—MAJOR J A MORRISON, D S O, Basildon Park, Goring, Reading
 699 R. N.—TOM A SCOTT & Co, The Trenches, Middle Green, Slough
 H. C.—696 C.—700

Class 573.—Cocks, any other distinct variety, Bantams excepted.

- 714 I.—JOSEPH LEWIS, Cote Brook, Tarporky Old English Pheasant Owl
 718 II.—R ANTHONY, Home Farm Lutton, Chorley Hamburg
 706 III.—J H BAKER & SONS, Windyash, Barnstaple Jubilee Indian Game
 711 IV.—MISS A. H GORDON BARRETT, The Mount Farm, Hedgerley Corner, Iarnham Royal
 Silkie
 717 V.—MRS J M WALKER, Oaklane Pedigree Poultry Farm, Newdigate, Surrey Barnevelder
 704 R. N.—LORD DEWAR, Homestall, East Grinstead Modern Game
 H. C.—716 C.—709

Class 574.—Cockerels, any other distinct variety, Bantams excepted.

- 721 I.—W W W BUTT, Eastfield Farm, North Thoresby Salmon Faverolle
 720 II.—THOMAS HOYLE, Savile Royd, Halifax Black Hamburg
 722 III.—MRS J M WALKER, Oaklane Pedigree Poultry Farm, Newdigate, Surrey Barnevelder

Class 575.—Hens, any other distinct variety, Bantams excepted.

- 730 I.—HARRY FOX, Richmond Poultry Farm, Matlock Redcap
 726 II.—R ANTHONY, Home Farm, Lutton, Chorley Hamburg
 735 III.—JOSEPH PICKERILL, Sound Council School, Nantwich Club-type Langshan
 732 IV.—J H BAKER & SONS, Windyash, Barnstaple
 724 V.—MISS A. H GORDON BARRETT, The Mount Farm, Hedgerley Corner, Iarnham Royal
 Silkie
 728 R. N.—JOHN H SPURRI, The Cottage, Park View, Llanelly Modern Game
 H. C.—734 C.—737

Class 576.—Pullets, any other distinct variety, Bantams excepted.

- 741 I.—W W W BUTT, Eastfield Farm, North Thoresby Salmon Faverolle
 741 II.—MISS A. H GORDON BARRETT, The Mount Farm, Hedgerley Corner, Iarnham Royal.
 Silkie
 742 III.—THOMAS HOYLE, Savile Royd, Halifax Black Hamburg
 745 R. N.—BLAKESLEY & BLITH, West Moors, Dorset. White Bresse
 H. C.—746.

Class 577.—Utility Poultry, White Wyandotte Cocks or Cockerels.

- 749 I. & 756 III.—RICHARD RODWELL, Walverden Poultry Farm, Nelson.
 748 II.—MRS EDITH SHEPPARD, Chanticleer Poultry Farm, Wrexham
 750 IV.—J A HARROP, Gwersyllt Hill, Wrexham
 752 V.—MISS E G DOBIE, Willow Cottage, Mouldsworth, Chester
 763 R. N.—ARTHUR SNOWDEN, Clayton Hall Poultry Farm, Crosshills, Yorks.
 H. C.—750 C.—751

Class 578.—Utility Poultry, White Wyandotte Hens or Pullets.

- 777 I.—PARK HOUSE POULTRY FARM, Horley, Surrey
 787 II.—C N GOODE, Bletsoe, Bedford
 778 III.—RICHARD RODWELL, Walverden Poultry Farm, Nelson
 764 IV.—LORD DEWAR, Homestall, East Grinstead

- 771 **V.**—ISAAC ASHTON & SON, Fir Tree Farm, Dukinfield.
 781 **E. N.**—J. T. BOSLEY, The Cottages, Liverpool Sanatorium, Frodsham.
H. C.—768. **C.**—769.

Class 579.—Utility Poultry, White Leghorn Cocks or Cockerels.

- 790 **I.**—RICHARD RODWELL, Walverden Poultry Farm, Nelson
 795 **II.**—ARTHUR SNOWDEN, Clayton Hall Poultry Farm, Crosshills, Yorks.
 791 **III.**—MISS E. G. DOBIE, Willow Cottage, Mouldsworth, Chester.
 789 **IV.**—HARRY WHITEOAK, The Grange Farm, Keldwick, Keighley.
 788 **V.**—MRS. J. A. HARROP, Gwersyllt Hill, Wrexham
 792 **E. N.**—MRS. A. RICHARDS & SONS, Statham Meadows Poultry Farm, Lynn.
H. C.—793. **C.**—787.

Class 580.—Utility Poultry, White Leghorn Hens or Pullets.

- 814 **I.**—MISS E. G. DOBIE, Willow Cottage, Mouldsworth, Chester.
 798 **II.**—LORD DEWAR, Homestall, East Grinstead.
 802 **III.** & 815 **IV.**—RICHARD RODWELL, Walverden Poultry Farm, Nelson.
 811 **V.**—MRS. J. A. HARROP, Gwersyllt Hill, Wrexham.
 818 **E. N.**—FRANCIS D. WATSON, Croftsbank, Thornton Hough, Birkenhead.
H. C.—812. **C.**—810.

Class 581.—Utility Poultry, British Rhode Island Red Cocks or Cockerels.

- 836 **I.**—THOMAS ATKINSON, Croft Poultry Farm, Burton-in-Lonsdale, Carnforth.
 828 **II.**—J. T. BOSLEY, The Cottages, Liverpool Sanatorium, Frodsham.
 835 **III.**—C. BOOTE, 3 Victoria Road, Buncorn.
 824 **IV.**—F. W. N. GODDARD, Sun Street, Hitchin
 830 **V.**—ISAAC ASHTON & SON, Fir Tree Farm, Dukinfield.
 823 **E. N.**—MISS M. K. NAPIER, Wellington Road Poultry Farm, Taunton.
H. C.—832. **C.**—821.

Class 582.—Utility Poultry, British Rhode Island Red Hens or Pullets.

- 843 **I.**—THOMAS HODGSON & SON, Redsholme, Cotherstone, Darlington
 840 **II.**—MRS. EDITH SHEPPARD, Chanticleer Poultry Farm, Wrexham.
 844 **III.**—J. T. BOSLEY, The Cottages, Liverpool Sanatorium, Frodsham.
 846 **IV.**—G. CLAPHAM, Bowbrook, Shrewsbury.
 845 **E. N.**—ROBERT HOWARD, Millfield Poultry Farm, Lower Thingwall, Birkenhead.
H. C.—842. **C.**—841.

Class 583.—Utility Poultry, Sussex Cocks or Cockerels, any colour.

- 849 **I.**—C. N. GOODE, Bletsoe, Bedford.
 851 **II.**—G. and T. ROWE, Cowley Lodge, Buckingham
 850 **III.**—C. W. CRACKNELL, 257 Franklin Road, Kings Norton, Birmingham.

Class 584.—Utility Poultry, Sussex Hens or Pullets, any colour.

- 856 **I.**—C. N. GOODE, Bletsoe, Bedford.
 864 **II.**—C. W. CRACKNELL, 257 Franklin Road, Kings Norton, Birmingham.
 852 **III.**—LORD DEWAR, Homestall, East Grinstead.
 853 **IV.**—PHYCIS E. HUGHES, Gresty, Crewe.
 854 **V.**—W. H. BRADY, Glan-y-Coed, Penmaenmawr.
 858 **E. N.**—ROBERT HOWARD, Millfield Poultry Farm, Lower Thingwall, Birkenhead.
H. C.—860. **C.**—863.

Class 585.—Utility Poultry, Cocks or Cockerels, any other variety.

- 867 **I.**—W. B. ABBEY, Croft Farm, Hessay, York. Buff Plymouth Rock.
 872 **II.**—DR. E. S. JACKSON, Poultry Farm, Carnforth.
 870 **III.**—G. CLAPHAM, Bowbrook, Shrewsbury Ancona.
 871 **E. N.**—ARTHUR SNOWDEN, Clayton Hall Poultry Farm, Crosshills, Yorks. Barnevelder.
H. C.—869. **C.**—873.

Class 586.—Utility Poultry, Hens or Pullets, any other variety.

- 883 **I.**—FREDERICK SCOTT, West Garth, Arncliffe, Carnforth. Ancona.
 878 **II.**—RICHARD RODWELL, Walverden Poultry Farm, Nelson.
 874 **III.**—LORD DEWAR, Homestall, East Grinstead Black Orpington
 875 **IV.**—MRS. J. M. WALKER, Oaklane Pedigree Poultry Farm, Newdigate, Surrey. Barnevelder.
 877 **E. N.**—WALTER HURST, South Terrace, Glossop. Black Leghorn.
H. C.—881. **C.**—879.

Class 587.—Aylesbury Drakes or Ducks.

- 887 **I.**—JAMES HUNTLY & SON, Hirsal Poultry Farm, Coldstream.
 886 **II.**—MRS. A. H. PARRY, Henblas, Llanerchymedd, Anglesey.
 888 **III.**—THE REV. JOSEPH HEWETSON, Burbage Vicarage, Buxton.
 885 **E. N.**—C. S. GAMON, Thornton-le-Moors, Chester.
H. C.—891.

Class 588.—Rouen Drakes or Ducks.

- 892 I. & 900 III.—R. ANTHONY, Home Farm, Luxton, Chorley, Lancs.
 898 II.—SAMUEL SPINKE, Park Farm, Stowling, Ashford, Kent
 895 IV.—JAMES HUNTLY & SON, Hirsel Poultry Farm, Coldstream
 894 R. N.—ARTHUR MOSFORD, Frog Lane Farm, Tattenhall, Chester
 H. C.—902 C—893.

Class 589.—Fawn Indian Runner Drakes or Ducks, bred prior to 1925.

- 911 I. & Special.—E. H. LANG, Greenwood House, Wigton
 916 II. & Special.—JAMES R. SMITH, Netherholm House, Dumfries
 914 III. & R. N. for Special.—THE MISSES DAVIDSON and CHISHOLM, Cantray, Croy, Gollan-
 field, Inverness-shire
 908 IV. & R. N. for Special, & 913 V.—WILLIAM WOODMASS, Howard House, Gilsland, Carlisle.
 H. C.—910 C—906

Class 590.—Fawn Indian Runner Drakes or Ducks, bred in 1925.

- 917 I.—E. H. LANG, Greenwood House, Wigton
 919 II.—REGINALD APPELEYARD, Brewsters, Ixworth, Suffolk
 920 III.—MISS ANNIE PERCIVAL, Beach Poultry Farm, Minchhead
 921 R. N.—WILLIAM WOODMASS, Howard House, Gilsland, Carlisle

Class 591.—Indian Runner Drakes or Ducks, any other colour, bred prior to 1925.

- 922 I., 924 III. & 925 R. N.—REGINALD APPELEYARD, Brewsters, Ixworth, Suffolk
 923 II.—E. H. LANG, Greenwood House, Wigton

Class 592.—Indian Runner Drakes or Ducks, any other colour, bred in 1925.

- 926 I.—E. H. LANG, Greenwood House, Wigton
 930 II.—THE REV JOSEPH HEWITSON, Burleigh Vicarage, Buxton
 929 III.—REGINALD APPELEYARD, Brewsters, Ixworth, Suffolk
 928 R. N.—JAMES R. SMITH, Netherholm House, Dumfries

Class 593.—Buff Orpington Drakes or Ducks, bred prior to 1925.

- 933 I.—JAMES HUNTLY & SON, Hirsel Poultry Farm, Coldstream
 934 II.—THOMAS UMPFREV, Hillington, Primrose Hill, Jarrow on Tyne
 932 III.—COL R. S. WILLIAMSON, The Grange, Hednesford, Staffs

Class 594.—Buff Orpington Drakes or Ducks, bred in 1925.

- 938 I.—MRS H. B. JOHNSON, Houghton Castle, Brough
 935 II.—LIEUT COL W. G. JUCAS, Beech Place, Stowmarket
 937 III.—JAMES HUNTLY & SON, Hirsel Poultry Farm, Coldstream
 936 R. N.—LIEUT COL G. R. B. PATTIN, Glan Hafod, Penmaen, Old Colwyn.

Class 595.—Drakes, any other variety.

- 946 I.—DR A. BARRY SYKES, Ashhurst, Formby, Cayuga
 941 II.—LESLIE WILBE, Walton Leigh, Addlestone, Great
 945 III.—JAMES LONGSON & SONS, Buxton Road, Chapel-en-le-Frith, Pekin
 943 R. N.—C. N. GOODE, Bletsoe, Bedford
 H. C.—940 C—947

Class 596.—Ducks, any other variety.

- 949 I.—ABBOT BROTHERS, Thuxton, Norfolk
 952 II.—DR A. BARRY SYKES, Ashhurst, Formby, Cayuga
 950 III.—C. N. GOODE, Bletsoe, Bedford
 951 R. N.—JAMES LONGSON & SONS, Buxton Road, Chapel-en-le-Frith, Pekin
 H. C.—948

Class 597.—Emden Ganders or Geese.

- 954 I.—ABBOT BROTHERS, Thuxton, Norfolk
 957 II.—EDWARD DICKIN, Pentrecoed, Llanymere
 955 III.—REGINALD APPELEYARD, Brewsters, Ixworth, Suffolk
 956 R. N.—MRS A. H. PARRY, Henblas, Llanerchymedd, Anglesey.
 H. C.—959 C—958

Class 598.—Toulouse Ganders or Geese.

- 960 I.—ABBOT BROTHERS, Thuxton, Norfolk
 962 II.—W. G. WATSON, Ruspur Road, Horsham
 961 III.—REGINALD APPELEYARD, Brewsters, Ixworth, Suffolk.

Class 599.—Turkey Cocks.

- 965 I.—ABBOT BROTHERS, Thuxton, Norfolk
 967 II.—HORACE WOOLLATT, Valley Farm, Codicote, Welwyn.
 966 III. & 963 R. N.—LADY HARLECH, Brogyntyn, Oswestry
 H. C.—964

Class 600.—Turkey Hens.

- 969 I. ABBOT BROTHERS, Thuxton, Norfolk.
 970 II.—HORACE WOOLLATT, Valley Farm, Codicote, Welwyn
 968 III.—HERBERT BENNETT, Turkey Farm, Braiseworth, Ely

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- 1 I. (245.¹ & G.M.²)—JAMES CYPHER & SONS, Cheltenham.
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 3 III. (230.)—T. M. PETCH, Highfield Nursery, Great Horton, Bradford.

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- 5 I. (212.)—STUART LOW & Co, Bush Hill Park, Enfield.
 4 II. (27.)—JAMES CYPHER & SONS, Cheltenham.

Class 3.—Collections of Delphiniums.

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 6 II. (24.)—BLACKMORE & LANGDON, Twerton-on-Avon, Bath.

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- 9 I. (230.)—BLACKMORE & LANGDON, Twerton-on-Avon, Bath.

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- 10 I. (215.)—BEES, LTD., Sealand Nurseries, Chester.

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- 11 I. (230.¹)—BEES, LTD, Sealand Nurseries, Chester
 12 II. (225.)—WILLIAM ARTINDALE & SON, Nether Green, Sheffield.
 14 III. (220.)—GIBSON & Co., Leeming Bar, Bedale
 H. C.—13.

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- 20 I. (215.)—C. ENGELMANN, LTD, Saffron Walden
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Class 9.—Collections of Cut Sprays of Border Carnations.

- 21 I. (215.)—H LAKEMAN, Queensberry Nursery, Thornton Heath

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- 23 I. (215.)—ROBERT BOLTON & SON, Birdbrook, Halstead.
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 25 III. (27.)—J STEVENSON, Wimborne, Dorset.

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The Society is indebted to numerous Government Departments, both at home and abroad, to Boards of Agriculture, Agricultural and Breed Societies and kindred institutions, for copies of their Annual Reports, Journals, Stud, Herd, and Flock Books, Proceedings, Transactions, Bulletins, and other documents received regularly for the library in exchange for copies of the Journal, as well as to the Editors of many agricultural and general papers for the current numbers of their publications, which are placed for reference in the Reading Room.

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Instructions for Selecting and Sending Samples for Analysis.

GENERAL RULES.—(1) A sample taken for analysis should be fairly *representative of the bulk* from which it has been drawn.—(2) The sample should reach the Analyst in the *same condition* that it was in at the time when drawn.

When Fertilisers are delivered in bags, select four or five of these from the bulk, and either turn them out on a floor and rapidly mix their contents, or else drive a shovel into each bag and draw out from as near the centre as possible a couple of shovelfuls of the manure, and mix these quickly on a floor.

Halve the heap obtained in either of these ways, take one-half (rejecting the other) and mix again rapidly, flattening down with the shovel any lumps that appear. Repeat this operation until at last only some three or four pounds are left.

From this fill three tins, holding from $\frac{1}{2}$ lb. to 1 lb. each, mark, fasten up and seal each of these. Send one for analysis, and retain the others for reference.

Or,—the manure may be put into glass bottles provided with well-fitting corks; the bottles should be labelled and the corks sealed down. The sample sent for analysis can be packed in a wooden box and sent by post or rail.

When manures are delivered in bulk, portions should be successively drawn from *different parts* of the bulk, the heap being turned over now and again. The portions drawn should be thoroughly mixed, subdivided, and, finally, samples should be taken as before, except that when the manure is coarse and bulky it is advisable to send larger samples than when it is in a finely divided condition.

Lime, Cotton, and other Feeding Cakes.—If a single cake be taken, three strips should be broken off right across the cake, and from the middle portion of it, one piece to be sent for analysis, and the other two retained for reference. Each of the three pieces should be marked, wrapped in paper, fastened up, and sealed. The piece forwarded for analysis can be sent by post or rail.

A more satisfactory plan is to select four to six cakes from different parts of the delivery, then break off a piece about four inches wide from the middle of each cake, and pass these pieces through a cake-breaker. The broken cakes should then be well mixed and three samples of about 1 lb. each should be taken and kept in tins or bags, duly marked, fastened, and sealed as before. One of these lots should be sent for analysis, the remaining two being kept for reference. It is advisable also with the broken pieces to send a small strip from an unbroken cake.

Feeding Meals, Grain, &c.—Handfuls should be drawn from the centre of half a dozen different bags of the delivery; these lots should then be well mixed, and three $\frac{1}{2}$ -lb. tins or bags filled from the heap, each being marked, fastened up, and sealed. One sample is to be forwarded for analysis and the others retained for reference.

Soils.—Have a wooden box made 6 inches in length and width, and from 9 to 12 inches deep, according to the depth of soil and subsoil of the field. Mark out in the field a space of about 12 inches square; dig round in a slanting direction a trench, so as to leave undisturbed a block of soil and its subsoil 9 to 12 inches deep; trim this block to make it to fit into the wooden box, invert the open box over it, press down firmly, then pass a spade under the box and lift it up, gently turn over the box, nail on the lid, and send by rail. The soil will then be received in the position in which it is found in the field.

In the case of very light, sandy, and porous soils, the wooden box may be at once inverted over the soil, forced down by pressure, and then dug out.

Waters.—Samples of water are best sent in glass-stoppered Winchester bottles, holding half a gallon. One such bottle is sufficient for a single sample. Care should be taken to have these scrupulously clean. In taking a sample of water for analysis it is advisable to reject the first portion drawn or pumped, so as to obtain a sample of the water when in ordinary flow. The bottle should be rinsed out with the water that is to be analysed, and it should be filled nearly to the top. The stopper should be secured with string, or be tied over with linen or soft leather. The sample can then be sent carefully packed either in a wooden box with sawdust, &c., or in a hamper with straw.

Milk.—A pint bottle should be sent in a wooden box.

GENERAL INSTRUCTIONS. Time for Taking Samples.—All samples, both of fertilisers and feeding stuffs, should be taken as soon after their delivery as possible, and should reach the Analyst within *ten days* after delivery of the article. In every case it is advisable that the Analyst's certificate be received before a fertiliser is sown or a feeding stuff is given to stock.

Procedure in the Event of the Vendor wishing Fresh Samples to be Drawn.—Should a purchaser find that the Analyst's certificate shows a fertiliser or feeding stuff not to come up to the guarantee given him, he may inform the vendor of the result and complain accordingly. He should then send to the vendor *one* of the two samples which he has kept for reference. If, however, the vendor should demand that a fresh sample be drawn, the purchaser must allow this, and also give the vendor an opportunity of being present, either in person or through a representative whom he may appoint. In that case three samples should be taken in the presence of both parties with the same precautions as before described, each of which should be duly packed up, labelled and sealed by both parties. One of these is to be given to the vendor, one is to be sent to the Analyst, and the third is to be kept by the purchaser for reference or future analysis if necessary.

MEMBERS' BOTANICAL PRIVILEGES.

THE COUNCIL HAVE FIXED THE FOLLOWING RATES OF CHARGES FOR THE EXAMINATION OF PLANTS AND SEEDS

BY THE SOCIETY'S BOTANIST.

Analyses are given on the understanding that they are required for the individual and sole benefit of the Member applying for them, and must not be used for other persons or for commercial purposes. The Analyses and Reports may not be communicated to the vendor except in cases of dispute.

The charge for examination must be paid at the time of application, and the carriage of all parcels must be prepaid. When, however, *bond fide* inquiries require no special investigation the fees will be returned with the reply.

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 - 7.—Reports on any other matters of a botanical nature of interest to agriculturists 1s.
-

PURCHASE OF SEEDS.

The purchaser should obtain from the vendor, by invoice or other writing, the proper designation of the seeds he buys, with a guarantee of the percentage of purity and germination, and of its freedom from ergot, and, in the case of clover, from the seeds of dodder.

MEMBERS' BOTANICAL PRIVILEGES *(continued).*

THE SAMPLING OF SEEDS.

The utmost care should be taken to secure a fair and honest sample. This should be drawn from the bulk delivered to the purchaser, and not from the sample sent by the vendor.

When legal evidence is required, the sample should be taken from the bulk, and placed in a sealed bag in the presence of a witness. Care should be taken that the sample and bulk be not tampered with after delivery, or mixed or brought in contact with any other sample or bulk.

At least one ounce of grass and other small seeds should be sent, and two ounces of cereals and the larger seeds. When the bulk is obviously impure, the sample should be at least double the amount specified. Grass seeds should be sent at least four weeks, and seeds of clover and cereals two weeks before they are to be used.

The exact name under which the sample has been sold and analysed should accompany it.

REPORTING THE RESULTS.

The Report will be made on a schedule in which the nature and amount of impurities will be stated, and the number of days each sample has been under test, with the percentage of the seeds which have germinated.

"Hard" clover seeds, though not germinating within the time stated, will be considered good seeds, and their percentage separately stated.

The impurities in the sample, including the chaff of the species tested, will be specified in the schedule, and only the percentage of the pure seed of that species will be reported upon; but the **REAL VALUE** of the sample will be stated. The Real Value is the combined percentages of purity and germination, and is obtained by multiplying these percentages and dividing by 100; thus in a sample of Meadow Fescue having 88 per cent. purity and 95 per cent. germination, 88 multiplied by 95 gives 8,360, and this divided by 100 gives 83·6, the Real Value.

SELECTING SPECIMENS OF PLANTS.

When a specimen is sent for determination, the whole plant should be taken up and the earth shaken from the roots. If possible, the plants must be in flower or fruit. They should be packed in a light box, or in a firm paper parcel.

Specimens of diseased plants or of parasites should be forwarded as fresh as possible. They should be placed in a bottle, or packed in tinfoil or oil-silk.

All specimens should be accompanied with a letter specifying the nature of the information required, and stating any local circumstances (soil, situation, etc.) which, in the opinion of the sender, would be likely to throw light on the inquiry.

PARCELS OR LETTERS CONTAINING SEEDS OR PLANTS FOR EXAMINATION MUST BE ADDRESSED (CARRIAGE OR POSTAGE PREPAID) TO—

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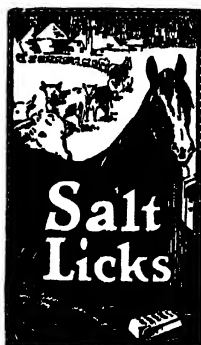
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